Avid® Nearchive™

Hardware Setup Guide

Avid

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Using This Guide

Congratulations on your purchase of an Avid® Nearchive™ Base Server with the *optional* Nearchive Storage System. The Nearchive Base Server and Storage System is available for use in two forms:

- The Nearchive Base Server provides:
  - Near-line storage for Avid Unity™ MediaNetwork workgroups
  - Storage for clips, sequences, and non-Avid objects in conjunction with the Avid Composer Products editors
  - Comprehensive search capabilities
  - Fast drag-and-drop multithreaded transfers between Nearchive and Avid Composer Products editors
  - Hardware RAID protection
  - Transfers over generic IP networks
- The Nearchive Storage System connects to the Nearchive Base Server to increase the storage capacity.

This guide is intended for anyone who is installing, configuring, or maintaining a Nearchive Base Server and Storage System. It provides installation and configuration information for the Nearchive Base Server or Nearchive Storage System hardware and software.

The documentation describes the features and hardware of all models. Therefore, your system might not contain certain features and hardware that are covered in the documentation.

Symbols and Conventions

The operating system for Nearchive systems is enclosure dependent. The Nearchive Base Server requires Windows® 2000 Server, while the Nearchive Storage System requires Windows 2000 Professional.

Avid documentation uses the following symbols and conventions:

Symbol or Convention	Meaning or Action
	A note provides important related information, reminders, recommendations, and strong suggestions.
	A caution means that a specific action you take could cause harm to your computer or cause you to lose data.
	A warning describes an action that could cause you physical harm. Follow the guidelines in this document or on the unit itself when handling electrical equipment.
>	This symbol indicates menu commands (and subcommands) in the order you select them. For example, File > Import means to open the File menu and then select the Import command.
▶	This symbol indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.
⌘	This symbol represents the Apple or Command key. Press and hold the Command key and another key to perform a keyboard shortcut.
Margin tips	In the margin, you will find tips that help you perform tasks more easily and efficiently.
(Windows), (Windows only), (Macintosh), or (Macintosh only)	This text indicates that the information applies only to the specified operating system, either Windows XP or Macintosh OS X.
Italic font	Italic font is used to emphasize certain words and to indicate variables.
`Courier Bold font`	Courier Bold font identifies text that you type.
Ctrl+*key* or *mouse action* ⌘+*key* or *mouse action*	Press and hold the first key while you press the last key or perform the mouse action. For example, ⌘+Option+C or Ctrl+drag.

If You Need Help

If you are having trouble using Nearchive Base Server and Storage System:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check for the latest information that might have become available after the documentation was published:
   - If the latest information for your Avid product is provided as printed release notes, they ship with your application and are also available online.
   - If the latest information for your Avid product is provided as a ReadMe file, it is supplied in your Avid application folder as a PDF document (ReadMe.pdf) and is also available online.

   You should always check online for the most up-to-date release notes or ReadMe because the online version is updated whenever new information becomes available. To view these online versions, select ReadMe from the Help menu. or visit the Knowledge Base at www.avid.com/readme.
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Chapter 1
Nearchive Hardware Overview

This chapter introduces the Nearchive enclosure in both its models: the Nearchive Base Server and the Nearchive Base Server with the *optional* Nearchive Storage System.

The Nearchive Base Server is capable of near-line storage for Avid Unity MediaNetwork workgroups, as well as storage for clips, sequences, and non-Avid objects in conjunction with the Avid Composer Products editors. It is designed to also provide comprehensive search capabilities, fast drag-and-drop multithreaded transfers between Nearchive and Avid Composer Products editors, hardware RAID protection, and transfers over generic IP networks.

The *optional* Nearchive Storage System is designed as an add-on to the Nearchive Base Server. The Storage System provides more storage capacity by allowing users to add up to four 16-drive Nearchive enclosures to an existing Nearchive Base Server.

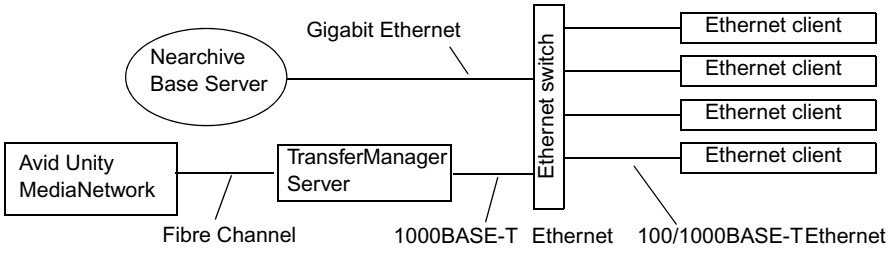
Topics in this chapter include:

- Introduction to the Nearchive Base Server and Storage System
- Common Nearchive Features
- Nearchive Base Server and Storage System Hardware
- Installation Prerequisites

Introduction to the Nearchive Base Server and Storage System

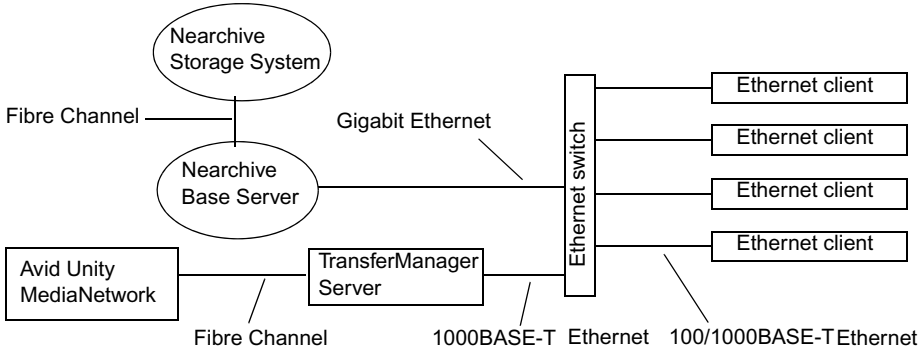
The Nearchive Base Server provides access to Ethernet clients over a Gigabit Ethernet network (see "Nearchive Base Server Cabling" on page 16).

The hardware configuration consists of a Nearchive Base Server, with approximately 5.5 terabytes (TB) of internal storage, running MediaManager and TransferManager. Nearchive uses approximately 50 gigabytes (GB) of space for application and database storage. MediaManager manages the media files, while TransferManager moves the media to and from local shared drives to external editors or workgroups.



Nearchive Base Server Cabling

The Nearchive Base Server cabled in conjunction with the Nearchive Storage System (see "Nearchive Base Server with Storage System Cabling" on page 16) provides all the functionality of the Nearchive Base Server while increasing the available storage capacity to approximately 27.5 TB, if four Nearchive Storage Systems are attached.



Nearchive Base Server with Storage System Cabling

The Nearchive Base Server requires an application key (commonly called a *dongle*) for the MediaManager and TransferManager functionality. Avid Composer Products clients do not require Nearchive application keys. However, the clients do require TransferManager software, and access to a TransferManager server.

Common Nearchive Features

The Nearchive Base Server uses the Microsoft® Windows® 2000 Server operating system with Service Pack 4. The Nearchive Storage System uses the Microsoft Windows 2000 Professional operating system with Service Pack 4.

You can ensure the integrity of your data using RAID 5 on your Nearchive Base Server and Storage System. Within a RAID 5 environment, parity data is written throughout the drive set. Protection creates a redundant configuration in which files, written to protected workspaces, are duplicated on more than one drive. This allows a protected workspace to be quickly repaired with no data loss if a drive fails.

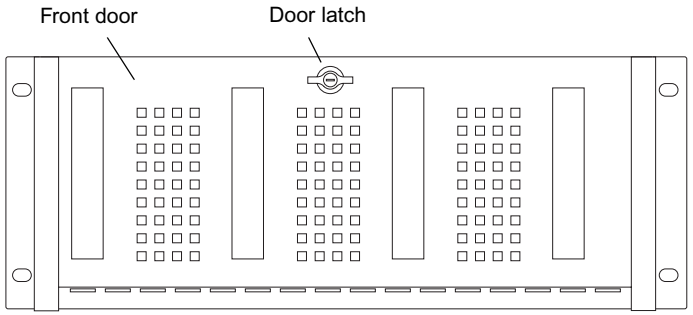
Nearchive Base Server and Storage System Hardware

The Nearchive Base Server is a standalone system using the Windows 2000 Server operating system and running the Nearchive, MediaManager, and TransferManager software. It is a dual-processor, rack-mount PC system that contains 17 hard drives: 1 internal drive for the operating system and 16 external, removable drives for storing data.

The Nearchive Storage System is similar hardware using the Windows 2000 Professional operating system. The *optional* Nearchive Storage System is set up entirely for data storage with 17 hard drives: 1 internal drive for the operating system and 16 external, removable drives for storing data.

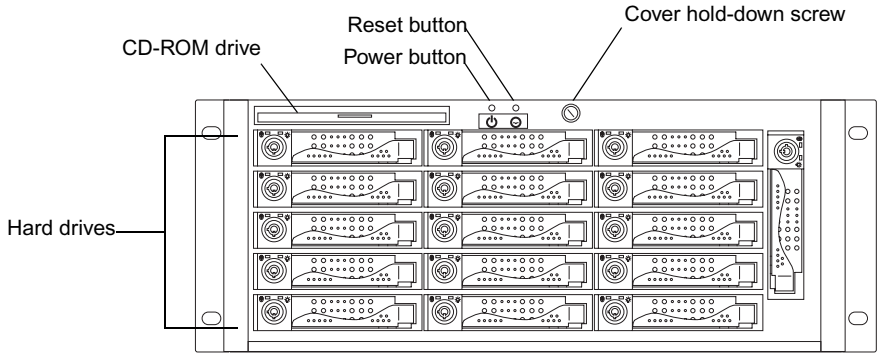
Nearchive Front Panel

The front of the Nearchive Base Server and Storage System has a single door (see "Nearchive Hardware with Front Door Closed" on page 18). The door can be locked to prevent access to the internal components while the Nearchive Base Server and Storage System is running.



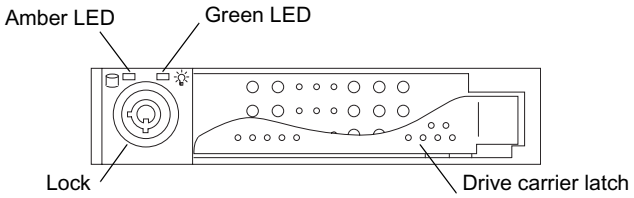
Nearchive Hardware with Front Door Closed

The door covers the hard drives, the CD-ROM drive, the floppy drive, and the Power and Reset buttons (see "Nearchive Hardware with Front Door Open" on page 18). When the door is open, it shows a list of the drives, by number, to simplify drive removal and replacement.



Nearchive Hardware with Front Door Open

Each hard drive has a lock and a green and amber LED on the left side of the drive carrier (see "Hard Drive Carrier" on page 19). The lock can be used to secure the drive carrier, preventing its removal from the Nearchive enclosure. The green LED is on when a drive is receiving power. The amber LED flashes when a drive is in use.

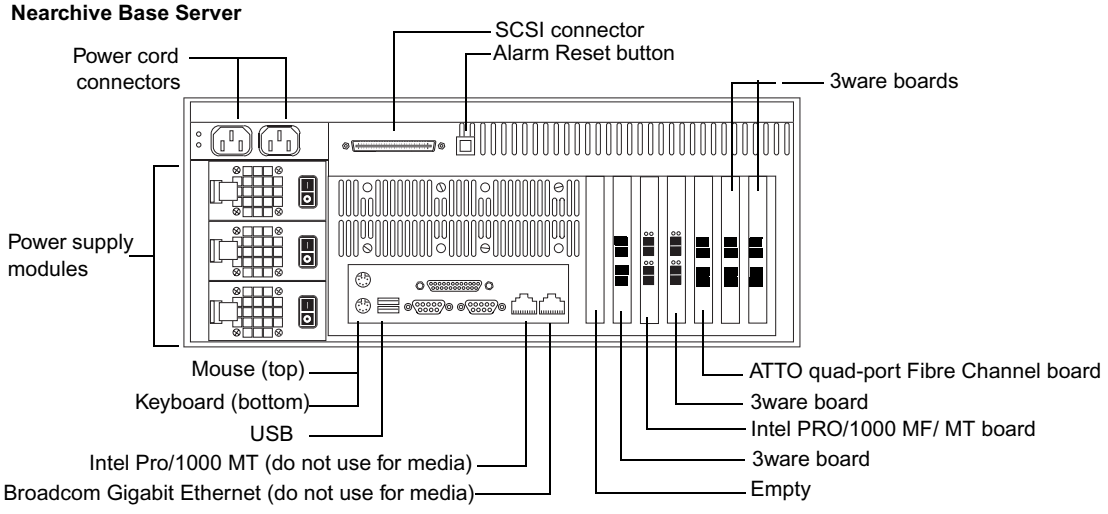


Hard Drive Carrier

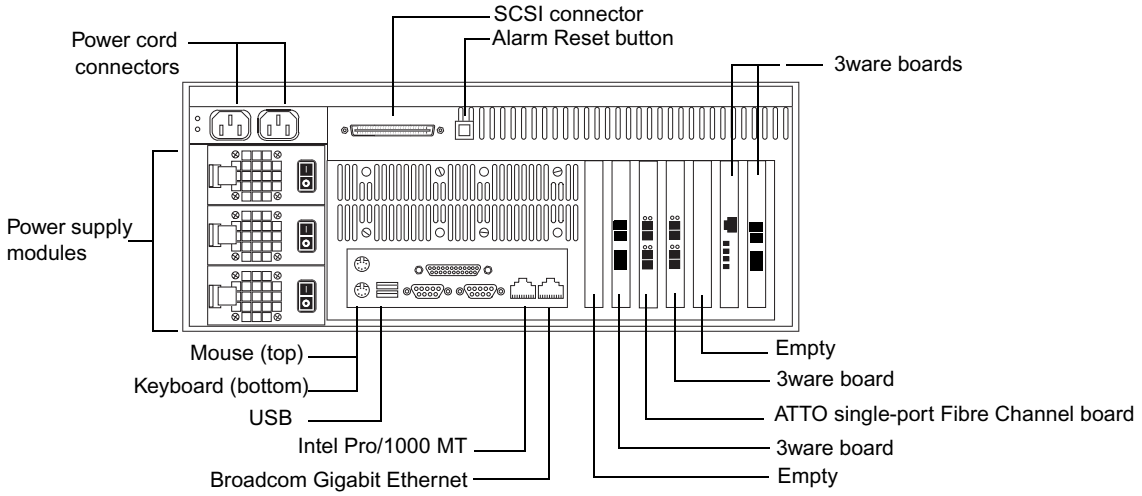
Nearchive Base Server and Storage System Rear Panel

The rear of the Nearchive Base Server and Storage System is where all of the cables are connected (see "Nearchive Rear Panel" on page 20). The rear panel contains the power cord connectors; the power supply modules; the inputs for the keyboard, mouse, and Universal Serial Bus (USB) application key; the video connector; the Gigabit Ethernet connector; and the quad-port Fibre Channel connections. The Nearchive Storage System has one single-channel, Fibre Channel adapter board installed for connectivity to the Nearchive Base Server.

Do not use either built-in Ethernet connectors for media transfers, only use the PCI NIC cards.



Nearchive Storage System



Nearchive Rear Panel

Installation Prerequisites

To set up a Nearchive Base Server and Storage System, you need:

- A Nearchive Base Server
- A Nearchive Storage System (optional)
- The Nearchive CD-ROM
- A fast Ethernet switch (a nonblocking Gigabit Ethernet-to-1000BASE-T Ethernet switch) that connects the Nearchive Base Server to the workgroup TransferManager or standalone Avid editing system. For best transfer speeds when connected to dedicated TransferManagers, use a Jumbo Frame capable Ethernet switch.

Chapter 2

Installing Nearchive Hardware

This chapter describes how to install a Nearchive Base Server and the *optional* Nearchive Storage System for proper operation. Connect the Nearchive Base Server to an in-house network. When you need additional storage, connect the *optional* Nearchive Storage System to the Nearchive Base Server.

Topics in this chapter include:

- Before You Begin
- Installing the Nearchive Hardware
- Connecting a Nearchive Base Server to an In-House Network
- Configuring the Nearchive Base Server Using Windows 2000 Setup
- Configuring the Nearchive Storage System Using Windows 2000 Setup

Before You Begin

Keep the shipping boxes that come with your Nearchive Base Server kit. You might need to repackage and ship the components in the future.

Before you install the Nearchive hardware, do the following:

- Unpack the Nearchive Base Server kit (the Nearchive enclosure and the Nearchive drives).
- Check the contents of the kit against the packing sticker on the outside of each shipping box to confirm you have received all the components.

Standard Nearchive Components

The *standard* Nearchive components include a Nearchive Base Server with 16 external data drives.

Optional Nearchive Components

The *optional* Nearchive components include:

- A Nearchive Storage System with 17 drives (16 external for data and 1 internal for the operating system)
- A standard monitor, keyboard, and mouse

  or
- A keyboard, monitor, and mouse assembly (KMM)
- A keyboard, video, and mouse switch (KVM), if you have a Nearchive Base Server with one or more attached Nearchive Storage Systems.
- An Intel® PRO/1000 MF optical Gigabit Ethernet adapter board
- A copper Gigabit Ethernet adapter board

All these components are available from Avid. You can contact Avid Telesales at 800-949-AVID (800-949-2843), your Avid sales representative, or your Avid Reseller to purchase these components.

Installing the Nearchive Hardware

The Nearchive Base Server might ship with an onboard copper Gigabit Ethernet adapter board, capable of Jumbo Frames. For fault tolerance, each Nearchive Base Server and Storage System unit has three autosensing power supply modules that set the voltage automatically for either 120 V or 220 V at 50 to 60 Hz.

If you intend to add one or more Nearchive Storage System units and therefore ordered 1 or more separate Fibre Channel adapter boards for your Nearchive Base Server, the Fibre Channel adapter boards must be installed.

Installing Additional Adapter Boards

Additional Fibre Channel adapter boards allow you to attach additional Nearchive Storage System units.

To install an additional board:

1. Open the Nearchive Base Server front door.
2. Loosen the cover hold-down screw at the top center of the front panel.
3. Slide the cover back approximately 1-1/2 inches.
4. Lift the cover off the enclosure.
5. Remove the board retainer bar screw on the right side near the back of the enclosure.
6. Lift the right side of the board retainer bar up, and pivot the bar to the left. The board retainer bar *must* be almost vertical on the left side of the enclosure to remove it.
7. Lift the board retainer bar out of the enclosure.
8. Select the slot in which you want to install the new board.
9. Remove the screw holding the slot cover in place.
10. Lift the slot cover out of the enclosure.

Before you continue, make sure you are wearing a grounding wrist strap attached to the metal of the enclosure. The boards are sensitive to electrostatic discharge. Do not handle boards unless you are properly grounded.

11. Locate the new board you are installing.
12. Remove the board from the antistatic bag.
13. Insert the board into the slot. Make sure the slot cover aligns correctly.
14. Push the board into the slot. Make sure the board is seated completely in the slot.
15. Replace the slot cover screw to hold the new board in place.

***Do not* run the Nearchive Base Server without the board retainer bar. The board retainer bar ensures that the boards are seated properly in their slots. Running the Nearchive Base Server without the board retainer bar can cause intermittent problems.**

16. Reinstall the board retainer bar. Make sure the drive controller boards are vertical. They *must* be in the left groove on the board hold-down arm when looking at the Nearchive Base Server from the front.
17. Align the board retainer bar, and replace the board retainer bar screw.

18. To replace the cover, slide it onto the enclosure.
19. Secure the cover with the hold-down screw.
20. Close the Nearchive Base Server front door.

The Nearchive Base Server hardware can be set on a desktop or mounted in a rack. Select one of the following:

- If you are installing the Nearchive enclosure on a desktop, continue with "Installing on a Desktop" on page 24.
- If you are installing the Nearchive enclosure in a rack, continue with "Installing in a Rack" on page 25.

Installing on a Desktop

The following sections describe how to install the Nearchive Base Server.

Installing the Nearchive Base Server

To install the Nearchive Base Server on a desktop:

1. Locate the rubber feet in the Nearchive Base Server kit.
2. Attach one rubber foot to the bottom of the Nearchive enclosure at each corner.
3. Place the Nearchive enclosure on the desktop. Leave adequate room at the front for air circulation and access to the drives, and at the back for cables.
4. Place the monitor, keyboard, and mouse on the desktop next to the Nearchive enclosure.

Do not place the monitor on top of the Nearchive enclosure. The enclosure is not designed to support heavy external weight.

5. Attach the 15-pin connector on the monitor cable to the video port on the back of the Nearchive enclosure. Secure the connector with the thumbscrews on the connector.
6. Attach the connector on the keyboard cable to the keyboard connector on the back of the Nearchive enclosure. The keyboard connector is at the bottom left of the connectors on the Nearchive enclosure.
7. Attach the connector on the mouse cable to the mouse connector on the back of the Nearchive enclosure. The mouse connector is directly above the keyboard connector.

Connecting Power Cords

Before you attach the power cords to the Nearchive enclosure, make sure the three Power switches on the Nearchive enclosure power modules are in the off (O) position.

To connect the power cords to the Nearchive enclosure and other components:

1. Plug one power cord into the right power connector on the back of the Nearchive enclosure.
2. Plug one power cord into the left power connector on the back of the Nearchive enclosure.
3. Plug the power cords into power outlets.
4. Plug the monitor power cord into a power outlet.

Continue with "Installing the Nearchive Drives" on page 27.

Installing in a Rack

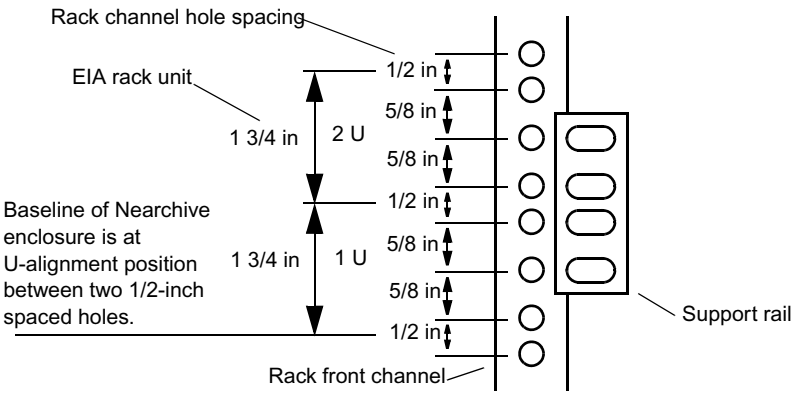
The following sections describe how to install the Nearchive enclosure in a rack.

Installing the Nearchive Enclosure Rack-Mount Rails

If you are installing the Nearchive enclosure in a rack, follow the instructions supplied in the Nearchive enclosure rail kit to install the rack-mount rails while ensuring that:

- The rails do not interfere with the power strips, power cords, or other cables at the back of the rack.
- The bottom of the Nearchive enclosure is at the bottom of a U-alignment space.
- The rails span two U-alignment spaces and use the middle two slots for screws (see "Aligning the Nearchive Rails to the Rack" on page 26).
- The rails allow the Nearchive enclosure to slide completely into the rack.
- The front edge of the slides are set back approximately 1/2 inch from the rack front channels.

- The rails attach as far forward on the Nearchive enclosure as possible.



Aligning the Nearchive Rails to the Rack

Mounting a Nearchive Enclosure

Mounting the Nearchive enclosure on the rack-mount rails is a two-person task. It is heavy and fits tightly into the rack rails; the rails might need to be spread slightly to fit the Nearchive enclosure. If you try to mount the Nearchive enclosure alone, you might damage the Nearchive enclosure or injure yourself.

To mount the Nearchive enclosure on the rack-mount rails:

1. Slide the rack-mount rails out of the rack.
2. Lift the Nearchive enclosure into position with one person on each side of the rack.
3. Place the rail slides on the Nearchive enclosure onto the extended rails.
4. Slide the Nearchive enclosure into the rack. You should hear the slides click onto the rails as you push the Nearchive enclosure into the rack.
5. Attach the keyboard, monitor, and mouse to the Nearchive enclosure using the following procedure.

Connecting a Standard Keyboard, Monitor, and Mouse

To connect the Nearchive enclosure to a standard keyboard, monitor, and mouse:

1. Place the keyboard, monitor, and mouse on a suitable desktop or table next to the Nearchive enclosure rack.

   You can also place the monitor on a shelf, and the keyboard and mouse on a sliding tray in the rack. These items are optional. You can supply them yourself, or you can purchase them from Avid.

Do not place the monitor on top of the Nearchive enclosure. The enclosure is not designed to support heavy external weight.

2. Attach the 15-pin connector on the monitor cable to the video port on the back of the Nearchive enclosure. Secure the connector with the thumbscrews on the connector.
3. Attach the connector on the keyboard cable to the keyboard connector on the back of the Nearchive enclosure. The keyboard connector is at the bottom left of the connectors on the Nearchive enclosure.
4. Attach the connector on the mouse cable to the mouse connector on the back of the Nearchive enclosure. The mouse connector is directly above the keyboard connector.

Connecting Power Cords

Before you attach the power cords to the Nearchive enclosure, make sure the three Power switches on the Nearchive enclosure power modules are in the off (O) position.

To connect the power cords to the Nearchive enclosure and other components:

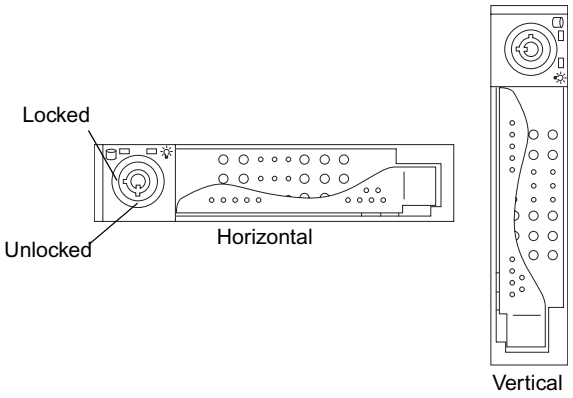
1. Plug one power cord into the right power connector on the back of the Nearchive enclosure.
2. Plug one power cord into the left power connector on the back of the Nearchive enclosure.
3. Plug the power cords into power outlets.
4. Plug the monitor power cord into a power outlet.

Installing the Nearchive Drives

To install a drive in a Nearchive enclosure:

1. Locate the drives that came with your Nearchive enclosure.
2. Select one drive.
3. Push down on the left side of the purple handle, and pull the handle forward from the drive carrier.

4. *Before* you begin to slide the drive into the enclosure (see "Hard Drive Carrier" on page 21 and "Proper Drive Orientation" on page 28) make sure the drive has the lock on the left or on the top.



Proper Drive Orientation

When you are installing drives in the Nearchive enclosure, begin the installation at the bottom of a column of drives. Make sure the first drive you install is level and flat as you insert it into the enclosure.

***Do not* force a drive into a slot. If you are having problems installing a drive, make sure that it is level and flat as you insert it into the enclosure, that the drive carrier latch is open and at a 45-degree angle to the drive carrier, and that the lock on the left of the drive carrier is in the unlocked (down) position.**

5. Slide the drive into the open drive slot in the Nearchive enclosure until it stops moving. Approximately 1/2 inch of the drive carrier should be outside the Nearchive enclosure.
6. Push the purple handle into the drive carrier. This seats the drive in the Nearchive enclosure. You'll hear a click when the drive is fully seated and the handle latches in place.
7. Repeat steps 2 through 6 for the remaining drives.

Connecting the Application Key

The application key, commonly referred to as a dongle, allows the Nearchive software to run on your system. The application key must connect to a USB port on your Base Server.

To connect the application key:

1. Locate the application key in the Nearchive Base Server kit.
2. On the Base Server, locate a USB port.
3. Attach the application key to the port.

   Make sure the application key is seated completely in the port. The Nearchive application key is mounted to the Nearchive Base Server only; there is no Nearchive application key for the *optional* Nearchive Storage System.

Do not lose the application key. Your Nearchive software does not function without it. If you lose your application key, you must purchase another key from Avid.

Connecting an Optional Nearchive Storage System

The *optional* Nearchive Storage System lets you expand your storage capacity by adding one or two Nearchive Storage System units to the Nearchive Base Server. The Nearchive Storage System and the Nearchive Base Server use the same hardware format. To prepare your Nearchive Storage System, repeat the procedures for preparing and installing a Nearchive Base Server.

To connect the Nearchive Storage System to the Nearchive Base Server:

1. Mount the Nearchive Storage System on a desktop near the Nearchive Base Server or in a rack directly above or below the Nearchive Base Server.

Do not set the Nearchive Storage System directly on top of the Nearchive Base Server. The Nearchive Base Server is not designed to support heavy loads.

2. Locate the 10-foot (3-meter) optical cable that came with the Nearchive Storage System kit.
3. Attach the connector on one end of the cable to the optical connector on the Fibre Channel adapter board (see “Nearchive Rear Panel” on page 22) on the back of the Nearchive Storage System. Secure the optical cable by firmly pushing the connector into the optical port.
4. Attach the connector on the other end of the cable to the optical connector on the Fibre Channel adapter board (see “Nearchive Rear Panel” on page 22) on the back of the Nearchive Base Server. Secure the optical cable by firmly pushing the connector into the optical port.

Connecting a Nearchive Base Server to an In-House Network

You must connect the Nearchive Base Server and Storage System to your in-house Ethernet local area network (LAN). A connection to an in-house LAN is required to allow access by Ethernet clients to a Nearchive Base Server and Storage System and to communicate drive failures using e-mail notification. Avid does not install, configure, or troubleshoot in-house LANs. If you are having trouble with your LAN, consult your Information Services department or your network vendor.

When you are connecting the Nearchive Base Server to an in-house network, use only Category 5e or 6 Ethernet cable. Using other cable types can cause Nearchive Base Server performance problems.

Connect the Nearchive Base Server to an in-house network using an Ethernet switch. Use the built-in Gigabit Ethernet adapter on the back of your Nearchive Base Server or the *optional* optical Gigabit Ethernet adapter to connect to the Ethernet switch.

Configuring the Nearchive Base Server Using Windows 2000 Setup

The first time you boot your Nearchive Base Server, it runs the Windows 2000 Setup utility to set several Windows operating system parameters. You'll need to have the Windows software kit available when you run the utility. It contains the Windows license number you need to type in as part of the configuration.

To set up the Windows operating system:

1. The Windows 2000 Setup utility starts, and the Windows 2000 Server Setup dialog box opens, showing the License Agreement screen.
2. Select "I accept the agreement" to accept the license.
3. Click Next. The Regional Settings screen appears.
   - If you are outside the United States, customize the system and locale settings and the keyboard for your location.
   - If you are in the United States, continue.
4. Click Next. The Personalize Your Software screen appears.
5. Type the system administrator's name in the Name text box.
6. Type the company name in the Organization text box.

7. Click Next. The Your Product Key screen appears.
8. Type the Product Key from the Certificate of Authenticity in the Product key text box. The certificate might be on the back of the *Windows 2000 Server Getting Started Guide* in the Windows software kit, or it might be affixed to the Nearchive Base Server.

   If the certificate is not already affixed to the Nearchive Base Server, remove it from the *Windows 2000 Server Getting Started Guide* and affix it now.
9. Click Next. The License Modes screen appears.
10. Click Per Server and set the number of concurrent connections to 5.
11. Click Next. The Computer Name and Administrator Password screen appears.
12. Type the name you want to use for the Nearchive Base Server in the Computer name text box.

Avid recommends using an administrator password to prevent unauthorized use of the Administrator account.

13. Type the password you want to use for the Administrator account in the Administrator Password text box.
14. Confirm the password by retyping the password in the Confirm Password text box.
15. Click Next. The Date and Time Settings screen appears. Set the correct date, time, and time zone for the Nearchive Base Server.
16. Click the “Automatically adjust clock for daylight saving changes” check box if your location observes daylight saving time.
17. Click Next. The Networking Settings screen appears.
18. Click Typical. The network settings are site dependent and will be set later during the Nearchive Base Server configuration in Chapter 3.
19. Click Next. The Workgroup and Computer Domain screen appears.
20. Click No. The workgroup and domain settings are site dependent and will be set later during the Nearchive Base Server configuration in Chapter 3. The Performing Final Tasks screen appears, followed by the Complete the Windows 2000 Setup Wizard screen.
21. Click Finish. The Windows 2000 operating system is loaded.

Your Nearchive Base Server hardware installation is complete. Continue with Chapter 3 to configure the Nearchive Base Server and to install the Nearchive software.

Configuring the Nearchive Storage System Using Windows 2000 Setup

The first time you boot your Nearchive Storage System, it runs the Windows 2000 Setup utility to set several Windows operating system parameters. You'll need to have the Windows software kit available when you run the utility. It contains the Windows license number you need to type in as part of the configuration.

To set up the Windows operating system:

1. The Windows 2000 Setup utility starts, and the Windows 2000 Professional Setup dialog box opens, showing the License Agreement screen.
2. Select "I accept the agreement" to accept the license.
3. Click Next. The Regional Settings screen appears.
   - If you are outside the United States, customize the system and locale settings and the keyboard for your location.
   - If you are in the United States, continue.
4. Click Next. The Personalize Your Software screen appears.
5. Type the system administrator's name in the Name text box.
6. Type the company name in the Organization text box.
7. Click Next. The Your Product Key screen appears.
8. Type the Product Key from the Certificate of Authenticity in the Product key text box. The certificate might be on the back of the *Windows 2000 Professional Getting Started Guide* in the Windows software kit, or it might be affixed to the Nearchive Storage unit.

   If the certificate is not already affixed to the Nearchive Storage unit, remove it from the *Windows 2000 Professional Getting Started Guide* and affix it now.
9. Click Next. The Computer Name and Administrator Password screen appears.
10. Type the name you want to use for this Nearchive Storage unit in the Computer name text box.

Avid recommends using an administrator password to prevent unauthorized use of the Administrator account.

11. Type the password you want to use for the Administrator account in the Administrator Password text box.
12. Confirm the password by retyping the password in the Confirm Password text box.
13. Click Next. The Date and Time Settings screen appears. Set the correct date, time, and time zone for the Nearchive Storage unit.

14. Click the “Automatically adjust clock for daylight saving changes” check box if your location observes daylight saving time.
15. Click Next. The Network Settings screen appears.
16. Click Typical. The network settings are site dependent.
17. Click Next. The Workgroup and Computer Domain screen appears.
18. Click No. The workgroup and domain settings are site dependent. The Performing Final Tasks screen appears, followed by the Complete the Windows 2000 Setup Wizard screen.
19. Click Finish. The Windows 2000 operating system is loaded.

Your Nearchive Storage System hardware installation is complete. Continue with “Nearchive RAID Configuration” on page 39 to configure the Nearchive Storage System.

Chapter 3

Configuring Nearchive Drives and Software

Topics in this chapter include:

- Nearchive RAID Configuration
- Setting Up the Nearchive Base Server
- Jumbo Frames
- Updating the ATTO Firmware
- Rearranging Drive Letters
- Setting Up the E Drive for SQL
- Creating Striped Volumes
- SQL 2000 Installation
- Installing the Nearchive Software
- Sharing Volumes
- Creating Media Files Folders
- Accessing and Logging Into Nearchive
- Configuring TransferManagers in a Workgroup
- Setting Up E-mail Notification
- Installing the IIS Lockdown Tool
- Booting from the Recovery DVD

Nearchive RAID Configuration

Use the following procedure to configure the Nearchive drives from a 16-raw-drive format into four 4-drive, RAID 5 arrays. Before you begin the procedure, you should have the drives physically installed and the Nearchive Base Server or Storage Server turned off.

The RAID process overwrites all data on the drives you are RAIDing.

To configure the Nearchive Base Server or Storage Server into four 4-drive, RAID 5 arrays:

1. Boot the Nearchive Base Server or Storage Server, and allow the BIOS process to begin.
2. As the DOS level BIOS screen presents the first 3ware® host bus adapter (HBA) with four drives, press the Alt and 3 keys simultaneously. The 3ware BIOS screen appears with the warning “The RAID process will overwrite any data on the drives you are RAIDing.”
3. Read the warning, and press any key on the keyboard to accept it. The configuration screen appears showing four raw drives as available. If less than four drives appear, there is a hardware malfunction. If you have this problem contact Avid Customer Support as described in “If You Need Help” on page 14.
4. Alternately press Enter to select a drive and the Down Arrow key to go to the next drive for selection. Continue this procedure until 4 drives are selected. An asterisk (*) on the left side of each drive indicates the drive is selected.
5. After you select 4 drives, “Create Array” is highlighted. Press Enter.
6. Press the Up Arrow key to select the “Select RAID configuration” option and press Enter.
7. Press the Down Arrow key to select RAID 5, and press Enter. The default drive configuration screen appears showing the RAID 5 configuration at the top. The default drive configuration is the Array Write Cache State enabled, and the stripe size set to 64K.
8. Press the Down Arrow key to select the “OK” box, and press Enter. Press the F8 key. A final warning screen appears. Read the warning and press the Y key to accept it. A window opens showing “Init RAID5 array Unit 0” and a “percentage done” counter. This process takes approximately 2.5 hours for each RAID controller. When the RAID initialization is complete, the system will continue the boot process to the Windows 2000 desktop.
9. Restart the system.

10. As the DOS level BIOS screen presents the second 3ware host bus adapter (HBA) with four drives, press the Alt and 3 keys simultaneously. The 3ware BIOS screen appears with the warning “The RAID process will overwrite any data on the drives you are RAIDing.”
11. Repeat steps 3 through 8 to configure each 3ware HBA (for a total of four times).
12. After all the 3ware HBA are configured, the Nearchive Base Server or Storage Server has four 4-drive, RAID 5 arrays and is ready for use.

Setting Up the Nearchive Base Server

Your Nearchive Base Server ships with the Windows 2000 Server operating system, Service Pack 4, and all the necessary drivers preinstalled. You do not need to perform any configuration operations on these items.

You do need to configure the Nearchive Base Server for the correct date and time, computer name, and network properties so it will function properly at your site. To set up the Nearchive Base Server, you should perform all the operations in the following sections.

Quick Summary

- Accurately set the date, time, and time zone.
- Specify a unique Computer Name by which all Ethernet clients will identify the Nearchive Base Server.
- Configure a static IP address and, if necessary, a gateway IP address for the Gigabit Ethernet network adapter.

Setting the Date, Time, and Time Zone

You need to correctly set the date, time, time zone, and daylight saving time option on each Nearchive Base Server.

To set the date, time, time zone, and daylight saving time option on a Nearchive Base Server:

1. Double-click the time in the taskbar. The Date/Time Properties dialog box opens.
2. Set the date and time using the Date & Time tab.
3. Click the Time Zone tab.
4. Set the time zone for the location of the Nearchive Base Server. By default, Windows 2000 sets the time zone to “(GMT - 8:00) Pacific Time (US & Canada), Tijuana.”

5. If your location observes daylight saving time, make sure the “Automatically adjust clock for daylight saving changes” option is selected.
6. Click OK to close the Date/Time Properties dialog box and save the settings.

Specifying a Unique Computer Name

To specify a unique computer name by which clients identify your Nearchive Base Server:

1. Right-click the My Computer icon on the desktop, and select Properties. The System Properties dialog box opens.
2. Click the Network Identification tab.
3. Click the Properties button. The Identification Changes dialog box opens.
4. Type the Nearchive Base Server name in the Computer name text box.
5. Determine if you need to select the Domain or Workgroup in the “Member of” section at the bottom of the dialog box. Contact your network administrator for assistance.
6. Click OK.
7. Close all open windows and dialog boxes.

IP Addressing Strategies When Connecting to a Network

If your Nearchive Base Server and Ethernet clients are connected to your in-house network, the Nearchive Base Server and each client must be properly configured with a unique, valid IP address and subnet mask.

Your site network administrator should determine how best to allocate IP addresses for systems on your in-house network, keeping in mind the following:

- You must assign a static IP address to the Gigabit Ethernet adapter on the Nearchive Base Server — the TransferManager servers are configured to locate the Nearchive Base Server using this address.
- However you assign the Avid IP addresses, the Nearchive Base Server and all TransferManager servers should have addresses in the same subnet. This eliminates transfers over a router, which would adversely affect transfer speeds.

Jumbo Frames

Jumbo frames provide improved network performance when used with a jumbo frame-capable switch. The Nearchive enclosure ships with either an Intel Pro/1000 MF or Intel Pro/1000 MT board. Each of these cards is capable of Jumbo Frame traffic.

Do not use either built-in Ethernet connectors for media transfers, only use the PCI NIC cards.

Configuring the Intel PRO/1000 MF or MT for Jumbo Frames

If you are using jumbo frames with the Intel PRO/1000 MF/MT Gigabit Ethernet board, configure the board.

To configure the Intel PRO/1000 MF/MT board:

1. Right-click the My Network Places icon, and select Properties.
2. Right-click the file for the Intel Pro interface used by Nearchive, and select Properties.
3. Click Configure.
4. Click the Advanced tab.
5. In the Settings area, select Jumbo Frames.
6. In the Value area, select 9014Bytes.
7. Click OK.

Updating the ATTO Firmware

The correct ATTO firmware is installed on new Nearchive Base servers and Nearchive Storage servers. You need to perform this procedure if you replaced the ATTO board in your system.

Perform these steps for every ATTO card in your Nearchive Base Server and Nearchive Storage servers.

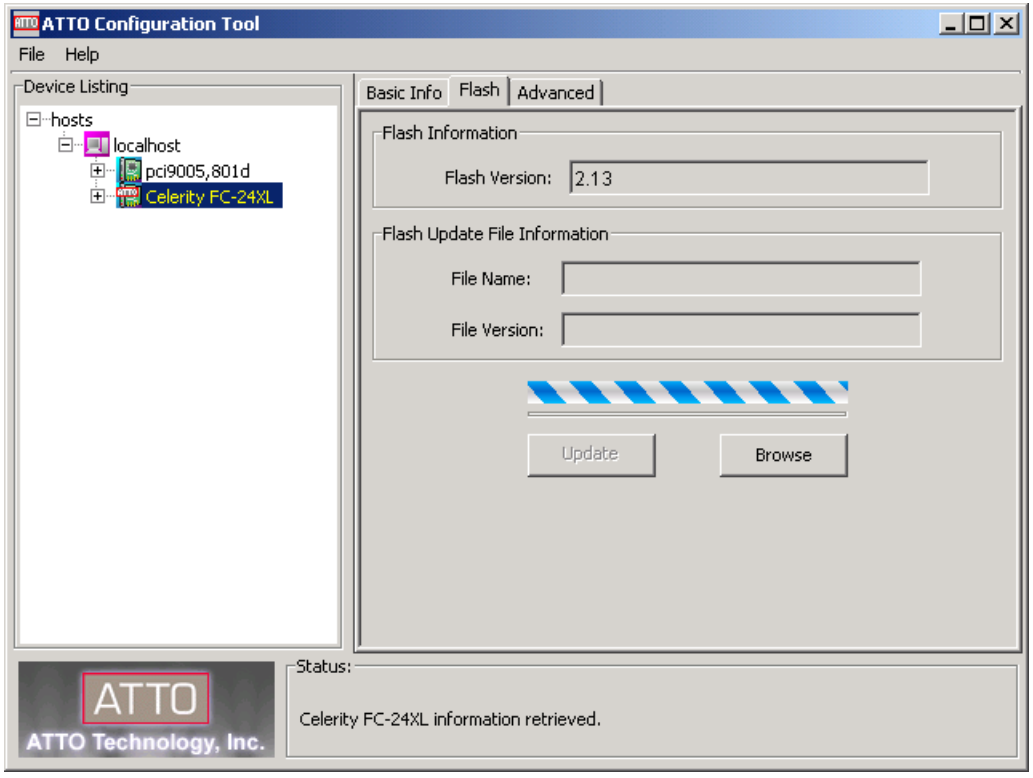
To update the firmware:

1. Click the Start menu and select Programs > ATTO Configuration Tool > Configuration Tool.

   The ATTO Configuration Tool opens.
2. Expand hosts and expand local hosts.

3. Do one of the following:
   - For Nearchive Base server, select the Celerity FC-24XL card.
   - For Nearchive Storage server, select the Celerity FC-41XS card.
4. Click the Flash tab.

   The following illustration shows the ATTO Configuration tool with the Flash tab open on the Nearchive Base server.



   The correct Flash version is 2.13.

   - If your version is 2.13, the firmware for this card does not have to be updated.
   - If the version is not 2.13, proceed to the next step.

5. Click the Browse button and browse to the following directory:

   D:\Drivers and Installers\ATTO\Flash

6. Do one of the following:
   - For Nearchive Base server, select FlashBundle_2005_08_09.24XL.
   - For Nearchive Storage server, select FlashBundle_2005_08_09.zip.
7. Click Open.
8. Click Update and follow the prompts to update the firmware.

Rearranging Drive Letters

Verify that Disk 0 contains partitions C and D. The internal drive should be C and D, and the DVD drive should be Z.

To rearrange disk lettering:

1. Right-click the My Computer icon on the desktop, and select Manage. The Computer Management window opens.
2. Select Disk Management.
3. Right-click on a drive listed in the lower right pane of the window, and select Change Drive Letter and Path from the list. The Select Drive Letter and Paths for (X:) window opens. (X:) being the current drive letter of the drive selected.
4. Click Edit. The Edit Drive Letter or Path window opens.
5. Select the drive letter you want to use from the pull-down list. The Confirm window opens asking: “Changing the drive letter of a volume may cause programs to no longer run. Are you sure you want to change this drive letter?”
6. Click Yes. The drive letter is changed.
7. Close the Computer Management window.

Setting Up the E Drive for SQL

Set up drive E with 50 GB of storage space for SQL Server 2000.

You must configure your disks as Dynamic disk drives for this release.

To set up drive E for SQL:

1. Right-click Disk 1 and select Upgrade to dynamic disk.

   The Upgrade to Dynamic Disk dialog box appears.
2. Select Disk 1, Disk 2, Disk 3, and Disk 4.
3. If you have a Nearchive Storage system, check those drives also.

4. Click OK.

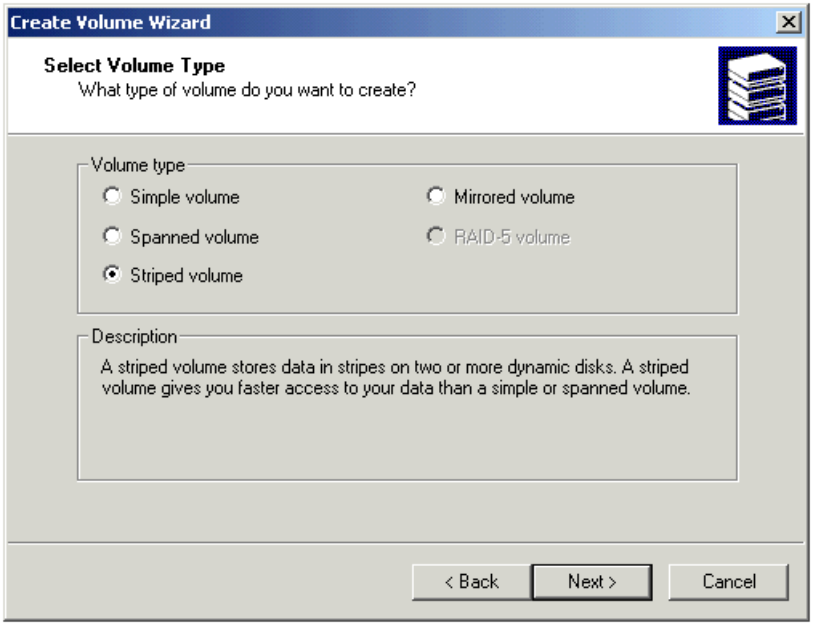
   The system changes the drives to dynamic disk drives.

5. Right-click Disk 1, and select Create Volume.

   The Create Volume Wizard window opens.

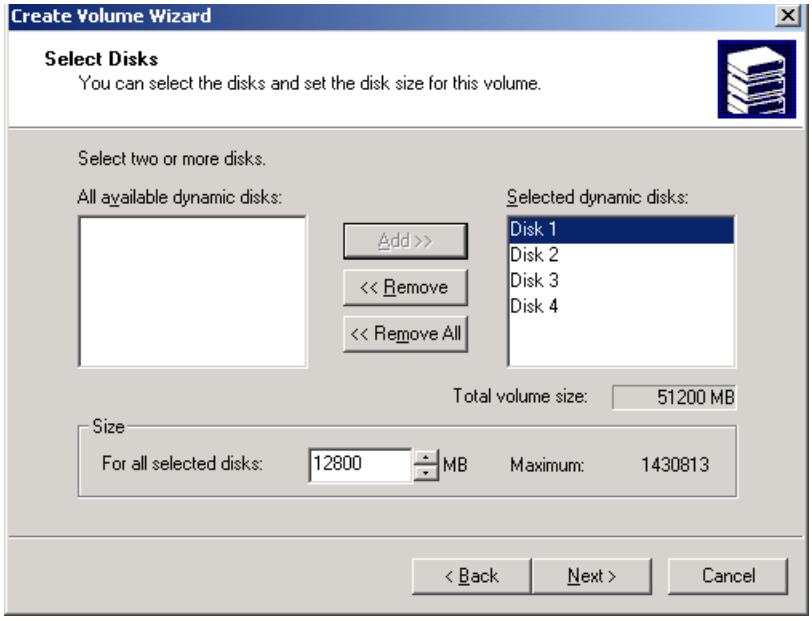
6. Click Next.

   The Select Volume Type screen appears.


Create Volume Wizard
Select Volume Type
What type of volume do you want to create?
Volume type
Simple volume
Mirrored volume
Spanned volume
RAID-5 volume
Striped volume
Description
A striped volume stores data in stripes on two or more dynamic disks. A striped volume gives you faster access to your data than a simple or spanned volume.
< Back
Next >
Cancel

7. Select Striped Volume.
8. Click Next.

   The Select Disks screen appears.

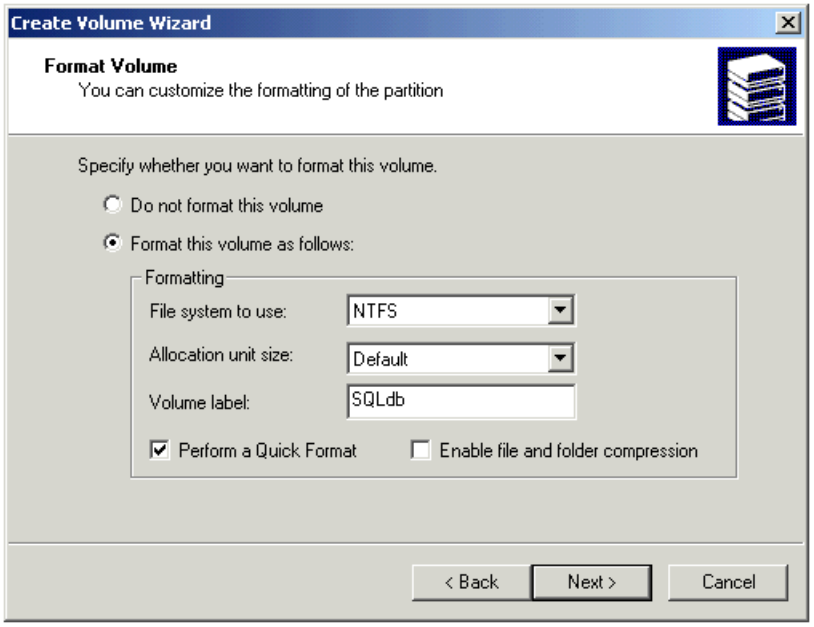


9. Disk 1 will already be selected. Highlight Disk 2 through 4, and click Add.
10. Disk 1 through 4 will appear in the Select Dynamic Disks area.
11. In the Size area, type 12800.
12. Click Next.
13. Assign drive letter “E”.

If E is not available you must manipulate the drives letters to make E available. See “Rearranging Drive Letters” on page 41.

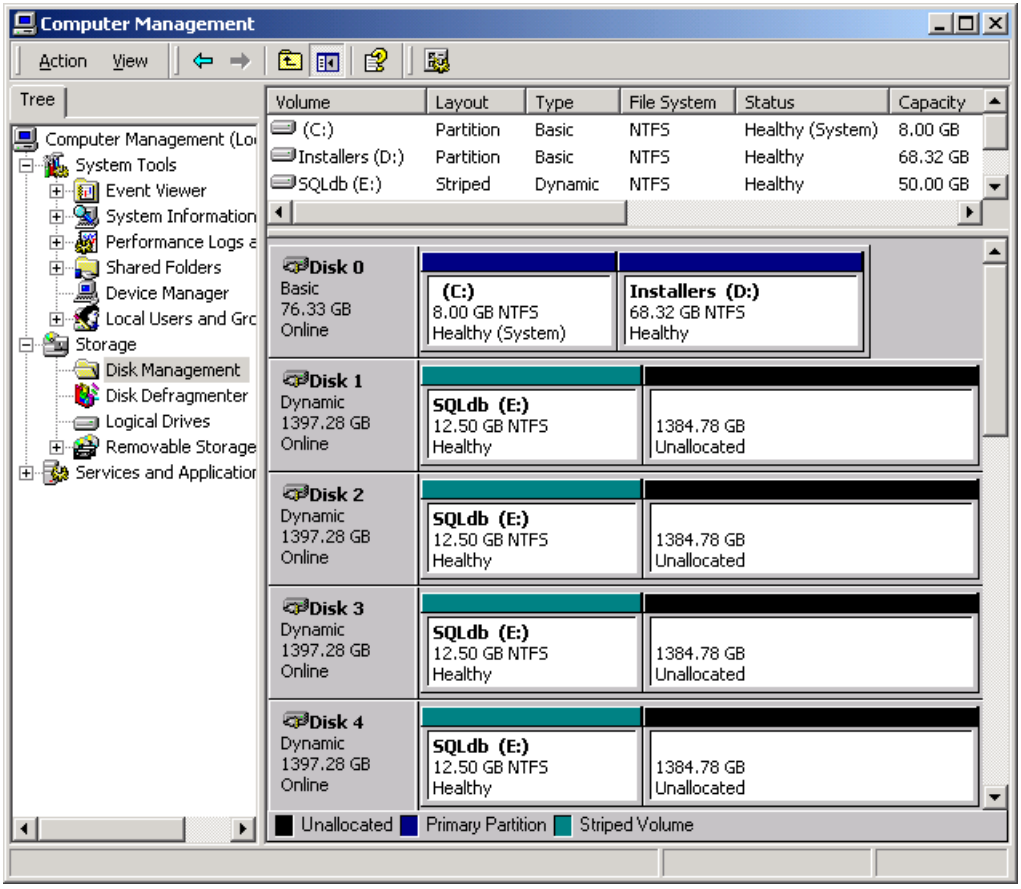
14. Click Next.

    The Format Volume screen appears.



15. Select the following options:
    - Select “Format this volume as follows.”
    - Select NTFS from the “File system to use” menu.
    - Select Default from the “Allocation unit size” menu.
    - Type SQLdb for “Volume label”
    - Select “Perform a Quick Format.”
16. Click Next.
17. Click Finish.

The following illustration shows an example of the E drive set up for SQL.


Computer Management
Action View
Tree
Computer Management (Lo
System Tools
Event Viewer
System Information
Performance Logs a
Shared Folders
Device Manager
Local Users and Grc
Storage
Disk Management
Disk Defragmenter
Logical Drives
Removable Storage
Services and Applicatior
Volume Layout Type File System Status Capacity
(C:) Partition Basic NTFS Healthy (System) 8.00 GB
Installers (D:) Partition Basic NTFS Healthy 68.32 GB
SQLdb (E:) Striped Dynamic NTFS Healthy 50.00 GB
Disk 0 Basic 76.33 GB Online
(C:) 8.00 GB NTFS Healthy (System)
Installers (D:) 68.32 GB NTFS Healthy
Disk 1 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
1384.78 GB Unallocated
Disk 2 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
1384.78 GB Unallocated
Disk 3 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
1384.78 GB Unallocated
Disk 4 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
1384.78 GB Unallocated
Unallocated Primary Partition Striped Volume

Creating Striped Volumes

Once you create a volume, you cannot change it without losing data.

Nearchive is best suited for:

- Wide open access, in which all shared drives are public; one shared drive per drive letter.
- Limited access, where relatively few people (administrators) can move media to/from Nearchive; one shared drive per drive letter.

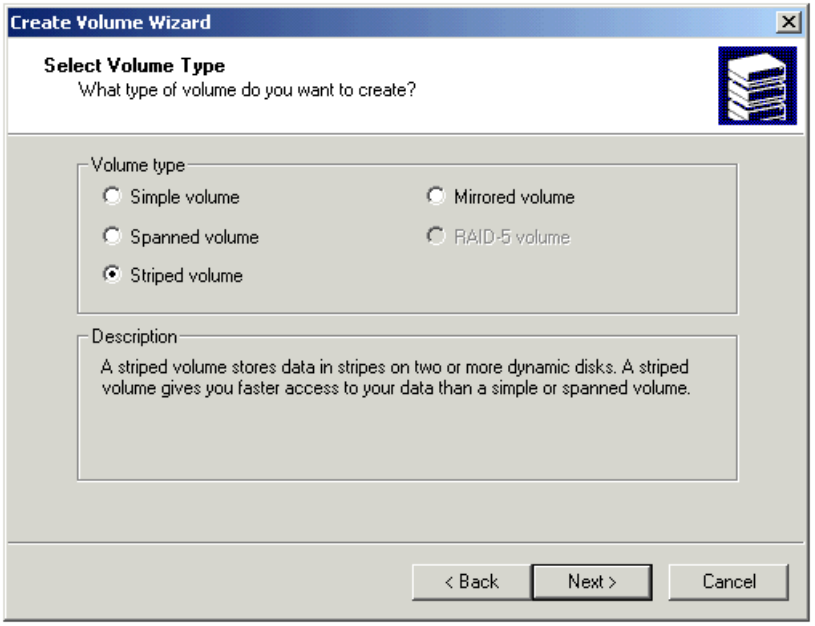
Create volumes *only* from the Base Server. *Never* use disk management tools from the Storage System to manipulate the RAID volumes.

To create volumes:

1. Right-click My Computer, then select Manage.
2. Select Disk Management.
3. Right-click Disk 1, then select Create Volume.

   The Create Volume wizard opens.
4. Click Next.

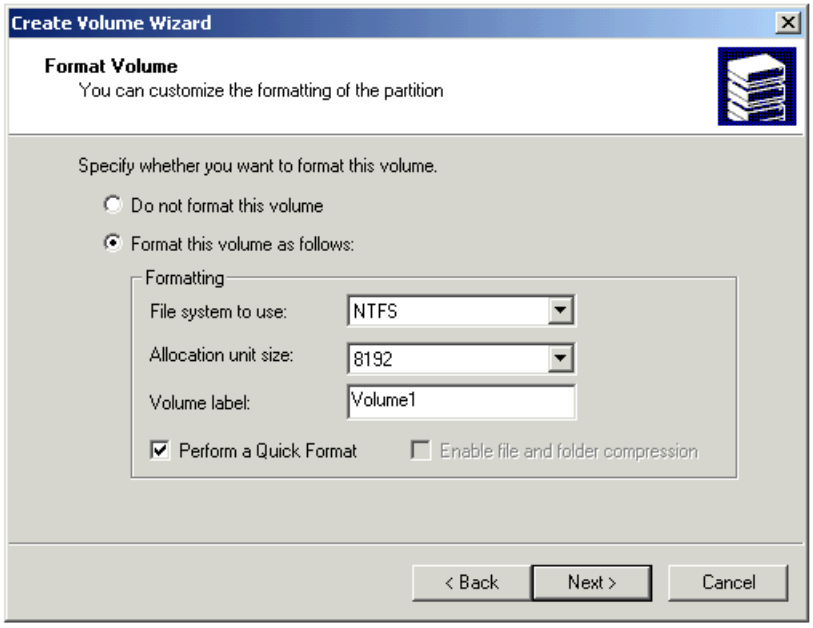
   The Select Volume Type screen opens.


Create Volume Wizard
Select Volume Type
What type of volume do you want to create?
Volume type
Simple volume
Mirrored volume
Spanned volume
RAID-5 volume
Striped volume
Description
A striped volume stores data in stripes on two or more dynamic disks. A striped volume gives you faster access to your data than a simple or spanned volume.
< Back
Next >
Cancel

5. Select Striped Volume.
6. Click Next.
7. Disk 1 is automatically selected. Highlight Disk 2 through 4, and click Add.
8. For the Size parameter, use all of the available space (the default value).
9. Click Next.
10. Assign a Drive letter.

11. Click Next.

    The Format Volume window appears.



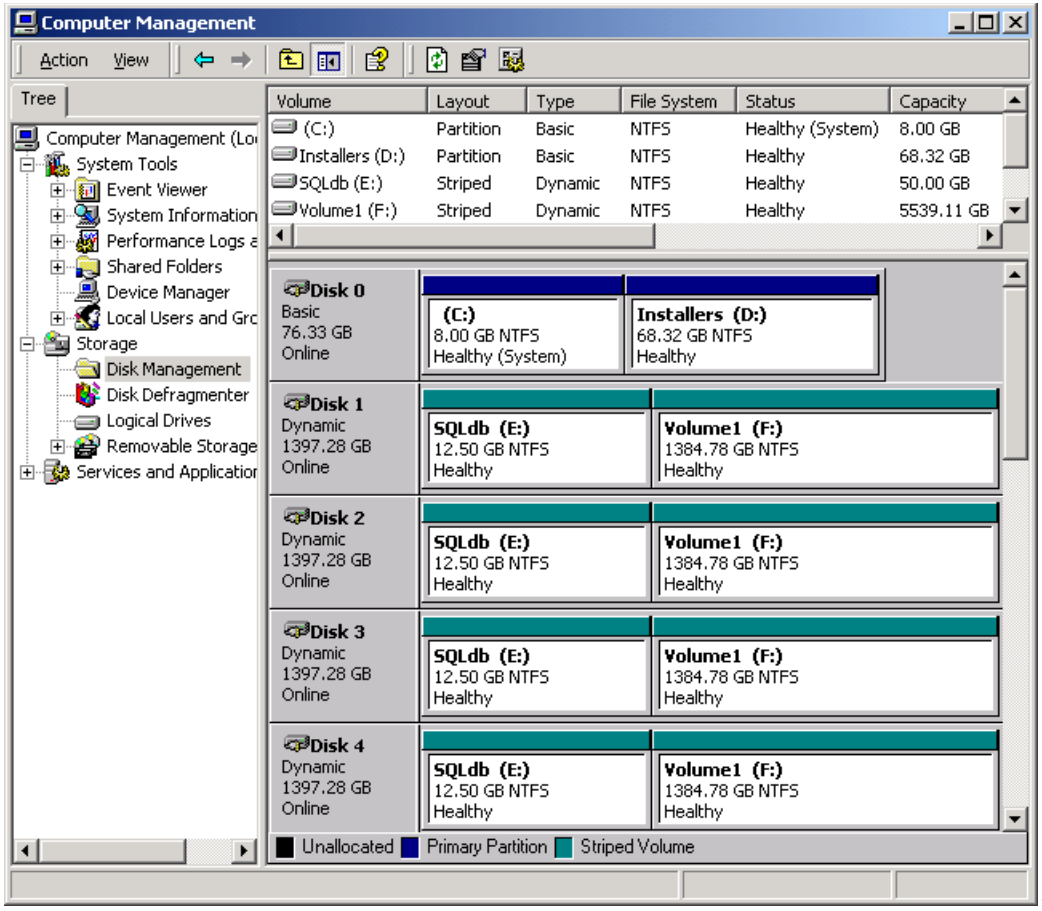
12. **Change the allocation unit size to 8192.**
13. (Option) Change the Volume label.
14. Select “Perform a Quick Format.”
15. Click Next.
16. Click Finish.

    The formatting takes several minutes. Do not use the system while the system formats the volume.

17. If you have additional Storage systems, repeat the procedure for the additional drives. Stripe drives 5 through 8 together, stripe drives 9 through 12 together, and so on.

    When completed, every additional storage unit should appear as one volume.

The following illustration shows an example of the created volumes


Computer Management
Action View
Tree
Computer Management (Lo
System Tools
Event Viewer
System Information
Performance Logs a
Shared Folders
Device Manager
Local Users and Grc
Storage
Disk Management
Disk Defragmenter
Logical Drives
Removable Storage
Services and Applicatior
Volume Layout Type File System Status Capacity
(C:) Partition Basic NTFS Healthy (System) 8.00 GB
Installers (D:) Partition Basic NTFS Healthy 68.32 GB
SQLdb (E:) Striped Dynamic NTFS Healthy 50.00 GB
Volume1 (F:) Striped Dynamic NTFS Healthy 5539.11 GB
Disk 0 Basic 76.33 GB Online
(C:) 8.00 GB NTFS Healthy (System)
Installers (D:) 68.32 GB NTFS Healthy
Disk 1 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
Volume1 (F:) 1384.78 GB NTFS Healthy
Disk 2 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
Volume1 (F:) 1384.78 GB NTFS Healthy
Disk 3 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
Volume1 (F:) 1384.78 GB NTFS Healthy
Disk 4 Dynamic 1397.28 GB Online
SQLdb (E:) 12.50 GB NTFS Healthy
Volume1 (F:) 1384.78 GB NTFS Healthy
Unallocated Primary Partition Striped Volume

SQL 2000 Installation

The following sections describe various database installation procedures.

Installing the SQL Server 2000 Software

To install the SQL Server 2000 software:

1. Double-click the SQL2000 Setup icon on the desktop.
2. At the Welcome screen, click Next.

3. Accept all the defaults for the SQL Server 2000 Installation questions until you get to the CD Key Installation window. Here you must enter the 25-digit CD Key number from the CD jewel case.

You must enter the 25-digit CD Key number from the SQL Server 2000 package. This number is on the back of the CD jewel case.

4. Continue selecting defaults until you access the Setup Type dialog box.
5. Browse the Data Files in the Destination Folder section of the Setup Type Window, and select drive E.
6. Set the path to E: \SQLdata, and click OK.
7. Click Next. The Services Accounts window opens.
8. Select the “Use the Same account for each service Auto Start SQL Server Service” option in the Service Accounts dialog box.
9. Select the “Use the Local System account” option in Service Settings.
10. Click Next. The Authentication Mode window opens.
11. Select Mixed Mode in the Authentication Mode dialog box.
12. Type a Password.

    This password is required during the Nearchive installation and the Service Pack installation.
13. Click Next. The Start Copying Files window opens.
14. Click Next again. The Choose Licensing Mode dialog box opens.
15. Select the “Per Seat for 5 Devices” option in the Licensing Mode dialog box.
16. Click Continue. The installation process begins.
17. Click Finish.

Installing SQL Server 2000 Service Pack 4

To install the service pack:

1. Double-click the SQL2000 SP4 Setup icon on the desktop.
2. At the Welcome screen, click Next.
3. Click Yes to accept the license agreement.
4. Click Next in the Instance Name window.
5. Select “The SQL Server system administrator login information (SQL Server Authentication).”

6. Enter the password for the sa account.

   This password must match the password you assigned to the Services Account in the SQL Server software installation.

7. Click Next to continue.

   The Backward Compatibility Checklist dialog box opens.

8. Select “Upgrade Microsoft Search and apply SQL Server 2000 SP4 (required).”
9. Click Continue.

   The New Error Reporting dialog box opens.

10. Do *not* select “Automatically Send Fatal Error Reports to Microsoft.”
11. Click OK.
12. In the Start Copying Files window, click Next.
13. Click Finish.
14. Click OK to the Backup Your Database message.
15. Click Finish.

    The system restarts.

After you have successfully installed the SQL Server 2000 software and SP4, you can remove the SQL2000 Setup icon and SQL2000 SP4 Setup icon from the desktop.

Installing the Nearchive Software

The Nearchive software lets the Nearchive Base Server store and retrieve data to and from clients over the LAN. This software is supplied on the Nearchive CD-ROM in the Nearchive installation kit. Nearchive v1.7.5 or later is supported.

Before installing the Nearchive software you must attach the application key. For a procedure on connecting the application key, see “Connecting the Application Key” on page 29.

If you want to move back to an earlier version of Nearchive after installing Nearchive v1.7.5, call your Avid representative. You will probably need some assistance in manually removing some files.

Installing the Nearchive Software

To install Nearchive software:

1. Remove any previous release of Nearchive software.
2. Insert the Nearchive application CD-ROM in the Nearchive Base Server CD-ROM drive. The Nearchive Installer window opens.
3. Click Install Products.
4. If you are performing an update, do the following to update your database:
   a. Click Use Database Updater.
   b. Click Next.
   c. Select a destination location for the Database Updater program and click Next.

      The SQL Server Login dialog box opens.
   d. The UserID **sa** appears in the text box. Leave **sa** as the UserID, and do not enter any password.
   e. Click Next to continue.

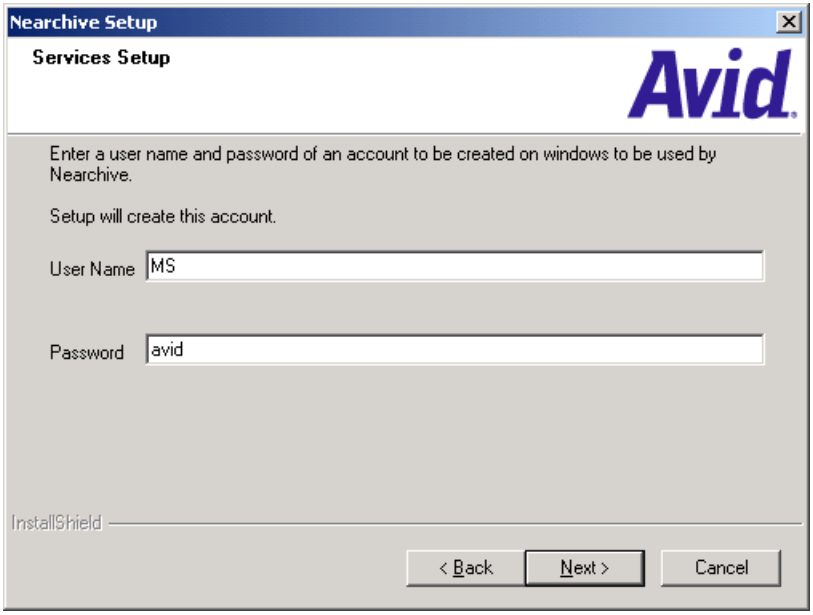
      A dialog box opens indicating the SQL database will be updated.
   f. Click OK and then click Yes.

      When the update is complete the Nearchive Installer window opens.
5. Click Install Nearchive
6. Click Next.
7. Select your country.
8. Click Next.
9. Click Yes to accept the license agreement.

   The Choose Destination dialog box appears.
10. Accept the default destination.

    The Select Program Folder dialog box appears.
11. Keep the default value and click Next.
12. The SQL Server Login window opens.
    - If you *did not* create an SQL password, accept the defaults and click Next.
    - If you *did* create an SQL password, type the same password here and click Next.
13. Click Yes to create the database and to continue installing the Nearchive Base Server software.

    The Services Setup window opens.



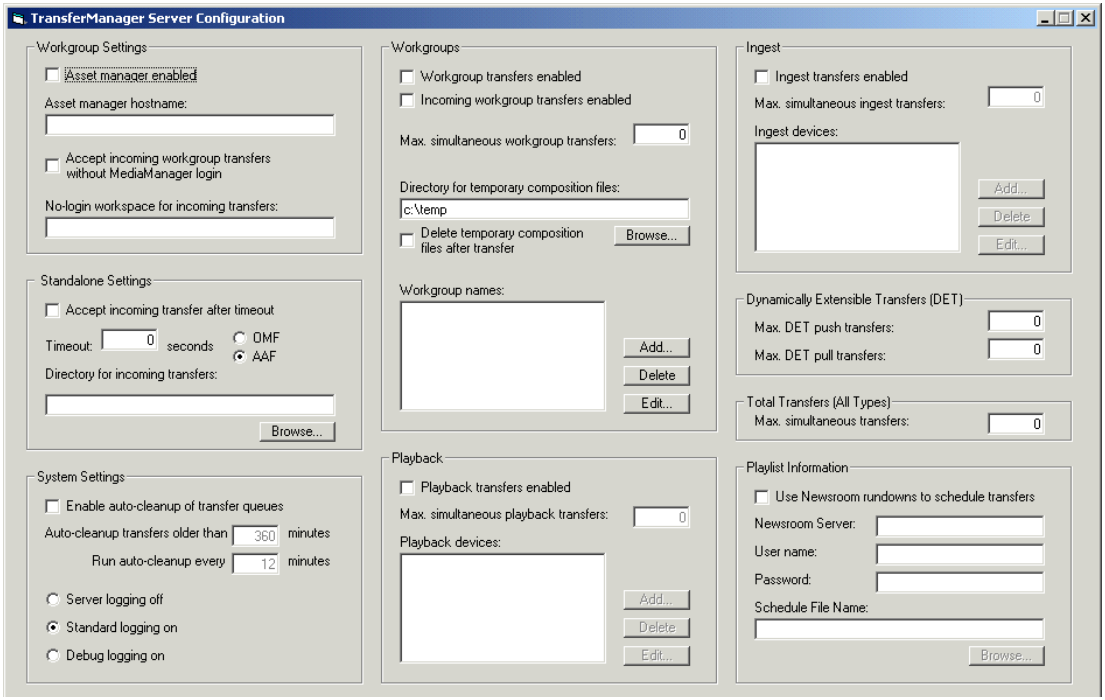
14. Type a user name and a password in the appropriate text boxes.

    The user name you enter is automatically created in the Nearchive Base Server operating system and added to the MediaManager database.

This user is used by the Nearchive Base Server to access and write media.

15. Click Next. The installation process begins and it takes several minutes to complete.
16. Click Yes to the “Do you want to configure TransferManager now?” option.

    The TransferManager Server Configuration window opens.



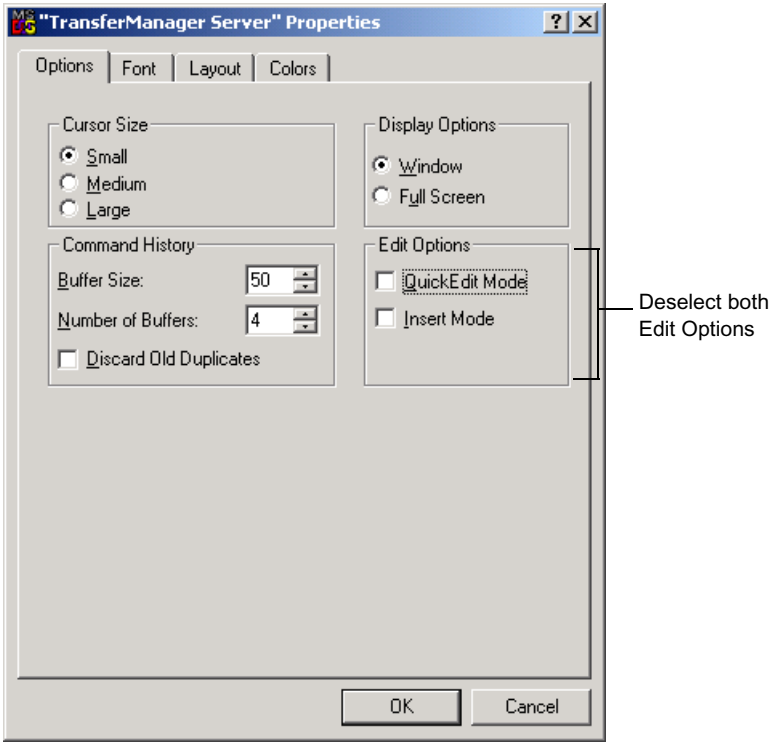
17. Select the options as follows:
    - In the Workgroup Settings area, select these options:
        - Asset manager enabled.
        - Type an Asset manager host name in the text box.
        - Accept incoming workgroup transfers without MediaManager login.
        - Type a No-login workspace name (the share name of a primary volume you created earlier) in the text box.

- In the System Settings area, select these options:
  - Enable auto-cleanup of transfer queues and enter values for minutes and seconds.
  - Standard logging on.
- In the Workgroup area, select these options:
  - WG transfers enabled.
  - Incoming working transfers enabled.
  - Type **4** in the Max. simultaneous playback transfers text box.
  - Delete temporary composition files after transfer.

18. Click Save, and restart your system.
19. When the system comes up, click the Start button and select Programs > Avid > TransferManager Server.

    The TransferManager Server window appears.
20. Right-click the title bar of the window.

    The TransferManager Server Properties window opens.



21. Click the Options tab and deselect both Edit Options.
22. Click OK.
23. Reboot your system.

Sharing Volumes

Share volumes *only* from the Base Server. *Never* use disk management tools from the Storage System to manipulate the RAID volumes.

To share volumes:

1. From the Base Server, double-click My Computer.
2. Right-click Volume.
3. Select Sharing.

   The Sharing Properties window opens.
4. Click the New Share button and type a name (for example, Volume1).
5. Apply permissions to meet the needs for your environment.

   Below are the *minimum* set of permissions needed to share volumes:

"MS" is the user name created for Services Setup during the Nearchive installation. Make sure to set permissions for the user name you created during your install.

- Administration and MS receive full permissions, full control
- "Everyone" receives read-only

Creating Media Files Folders

Once you have created volumes and verified that the lettering is correct, you need to create a media files folder. In order for media to be written into a volume, it must have this folder.

To create a media files folder:

1. Navigate to the top level of the directory in each volume.
2. Select File > New > Folder.
3. Depending on your workgroup environment, do one of the following:
   - In OMF workgroup, type **OMFI MediaFiles**. (This is case-sensitive.)
   - In AAF workgroup, type **Avid MediaFiles\MXF**. (This is case-sensitive.)

   Repeat this procedure for each volume you created.

4. Click the Start button, then select Run.
5. Type **iisreset**.
6. Click OK.

   This restarts the Base Server and picks up the new shared volumes.
7. Restart the TransferManager server if it is running.

Accessing and Logging Into Nearchive

The Nearchive user interface is implemented as a dynamic Web page. You open Nearchive with Internet Explorer 6.0 (Windows) or Internet Explorer 5.0 (Macintosh). This interface implementation allows easy access without the need to install and run special software on your Avid system.

Opening Nearchive

Optain the Nearchive URL from your site administrator. A typical example is:

```
http://nearchive-zx4/omm/default.asp
```

(*nearchive-zx4* is the computer name of the Nearchive server.)

To open the Nearchive in Internet Explorer:

1. Start the Internet Explorer application.
2. Select File > Open.
3. Type the URL supplied to you by your administrator in the Open dialog box, and then click OK.

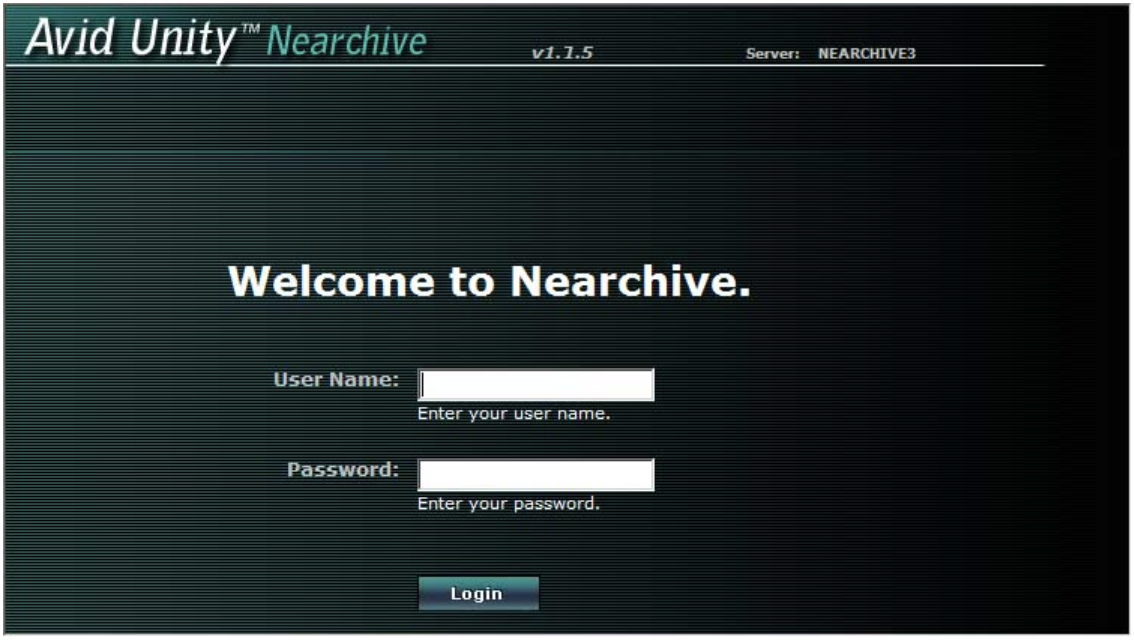
   Alternatively, if the Address toolbar is open, you can simply type the URL there and press Enter (Windows) or Return (Macintosh).

After you open the Nearchive page for the first time by specifying its URL manually, you might want to set it as your default home page or to bookmark it for easy access. For more information, see the Help provided with your Internet browser.

You can open additional Nearchive sessions by using the same login account in multiple browser windows on the same system without using additional Nearchive client licenses. However, opening additional Nearchive sessions on the same system by using another login account or opening Nearchive sessions on another system by using the same login account **will** use *additional licenses.*

Logging In

Each time you access Nearchive, a login screen opens, prompting you to enter your user name and password, that is assigned by your Nearchive administrator.



To log in:

1. Type your user name and password in the text boxes.
2. Click Login.

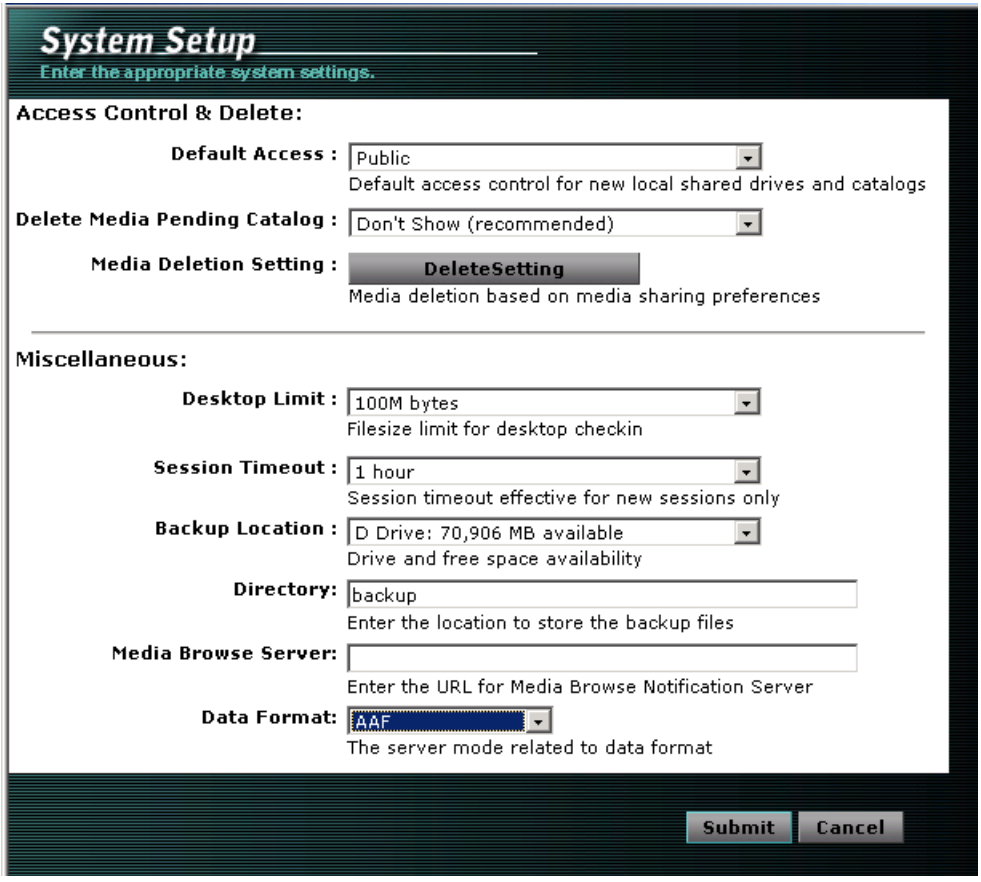
   If both are accepted, the Nearchive user interface will appear, automatically running a default search to find any media objects added to its database in the last 10 minutes.

Specifying Nearchive System Settings

To specify Nearchive system settings:

1. Login to Nearchive through the browser.
2. Click Administration in the mode selector.
3. Click the System Setup icon in the Functions list.

The System Setup window opens.



4. Select the settings that are appropriate for your site.

For a detailed explanation of the System Setup settings, see the Avid Nearchive Administration and User's Guide.

Setting the Nearchive Server Home Page

After you have installed the software, you can set your Internet Explorer home page on the Nearchive server to the Nearchive login screen.

To set Nearchive as your home page:

1. Start the Internet Explorer application.
2. In the Address field, type the Uniform Resource Locator (URL) for Nearchive, for example:

   http://*Nearchive server name*/omm/default.asp

   (*Nearchive server name* is the computer name of the Nearchive server.)
3. Select Tools > Internet Options.

   In the Home page area, click Use Current.
4. Click OK.

On the toolbar, you can create a shortcut for each MediaManager that you have by adding the location to your favorites.

Configuring TransferManagers in a Workgroup

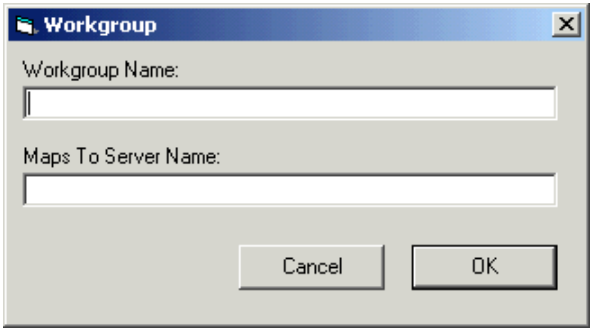
In the **existing** TransferManagers, add the Nearchive system as a workgroup.

To configure TransferManager to work with Nearchive:

1. Click Start, then select Programs > Avid > TransferManager Server Configuration.

   The TransferManager Server Configuration window opens.
2. Click the Add button next to Workgroup names.

   The Add Workgroup dialog box opens.



3. In the Workgroup name text box, type a name for the Nearchive.

   Do not use the Nearchive host name.
4. In the Maps To Server Name text box, type the Nearchive hostname.
5. Click OK.

Setting Up E-mail Notification

You can set up E-mail notification on both the Nearchive Base Server and the Nearchive Storage System. The E-mail message contains the same information found on the 3DM Alarm display. For example, you are notified if problems occur on the disk arrays that require attention. See the 3DM Help for more information.

Each Nearchive Storage System must be ethernet-connected for e-mail notification to work.

To set up E-mail notification:

1. Double-click the 3DM desktop icon.
2. Click Settings.
3. Select Enabled.
4. Fill in the following fields:
   - Sender (the Base Server or Storage System name)
   - Recipient (administrator's e-mail)
   - Server (your network mail server)
5. Click Save E-mail Settings.
6. Send a test message to verify that e-mail notification works.

Installing the IIS Lockdown Tool

The Microsoft Internet Information Services (IIS) Lockdown tool is an optional software package that improves the security on the system running the Nearchive application. It closes unused doors that hackers could exploit. The tool does not affect the Nearchive application in any way. It is not necessary to run this tool on new Nearchive servers, as that task is performed at the factory.

If the Nearchive system is currently running the IIS Lockdown tool, it is not necessary to install v2.1. If you want to install IIS Lockdown v2.1, you need to run the original IIS Lockdown tool to unlock the previous settings, then reinstall the Nearchive software, and then install and run IIS Lockdown v2.1.

If you decide to install the IIS Lockdown tool, follow the instructions in this section. If you install the software incorrectly it can prevent you from running Nearchive. If the system displays Microsoft 404 errors when you attempt to access the Nearchive application, reinstall the IIS Lockdown tool.

After you install the Nearchive software, you can install the IIS Lockdown v2.1 tool on the server.

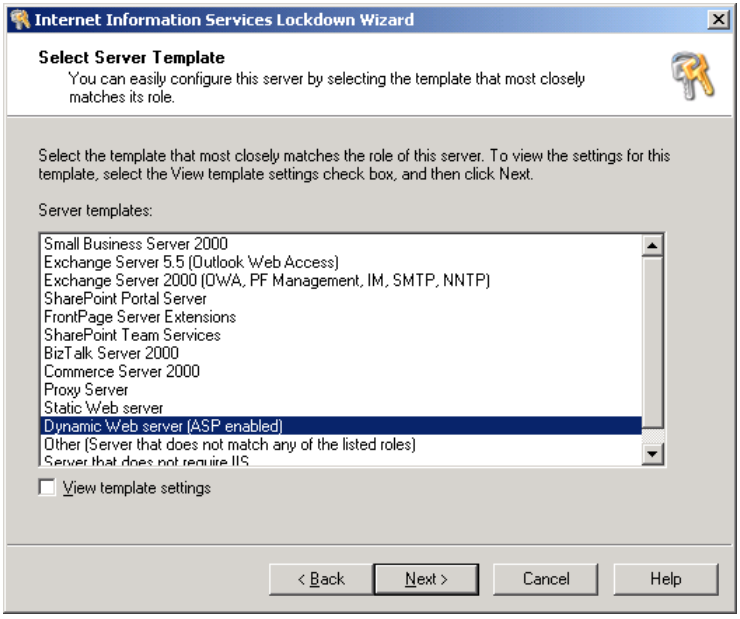
To install the IIS Lockdown tool:

1. Download the IIS Lockdown v2.1 executable file from the Microsoft Web site:
   a. Go to www.microsoft.com.
   b. Search for IIS Lockdown.
   c. Follow the download procedure on the Microsoft Web site.
2. Double-click the IISLockd.exe file that you downloaded.

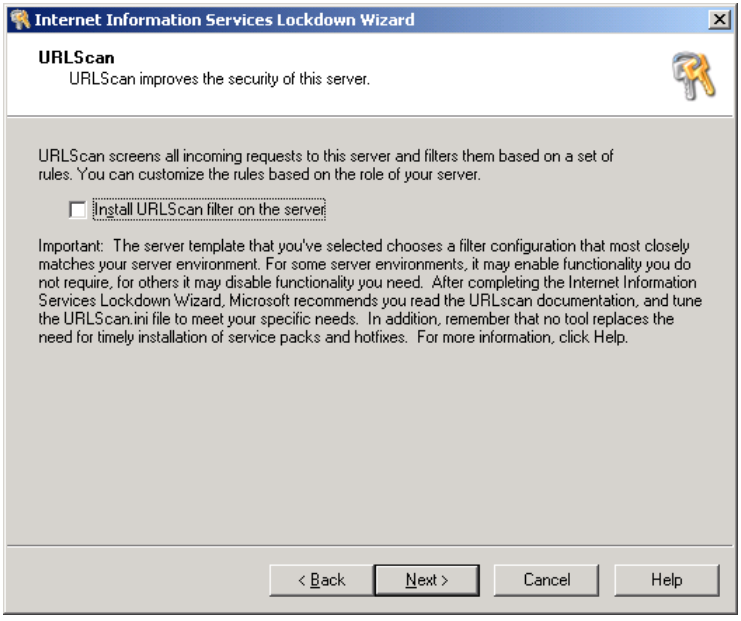
   The IIS Lockdown installation wizard opens.

If the "This Server was Already Configured" dialog box opens, click Cancel to exit the installation. The Nearchive system is already running IIS Lockdown. If you want to install IIS Lockdown v2.1, you need to run the original IIS Lockdown tool to unlock the previous settings, then reinstall the Nearchive application, and then install and run IIS Lockdown v2.1.

3. Click Next to begin the installation.
4. Click Next to accept the license agreement.
5. In the Select Server Template window, select Dynamic Web server (ASP enabled) and click Next.


Internet Information Services Lockdown Wizard
Select Server Template
You can easily configure this server by selecting the template that most closely matches its role.
Select the template that most closely matches the role of this server. To view the settings for this template, select the View template settings check box, and then click Next.
Server templates:
Small Business Server 2000
Exchange Server 5.5 (Outlook Web Access)
Exchange Server 2000 (OWA, PF Management, IM, SMTP, NNTP)
SharePoint Portal Server
FrontPage Server Extensions
SharePoint Team Services
BizTalk Server 2000
Commerce Server 2000
Proxy Server
Static Web server
Dynamic Web server (ASP enabled)
Other (Server that does not match any of the listed roles)
View template settings
< Back
Next >
Cancel
Help

6. In the URLScan window, deselect “Install URLScan filter: on the server”.
7. Click Next.


Internet Information Services Lockdown Wizard
URLScan
URLScan improves the security of this server.
URLScan screens all incoming requests to this server and filters them based on a set of rules. You can customize the rules based on the role of your server.
Install URLScan filter on the server
Important: The server template that you've selected chooses a filter configuration that most closely matches your server environment. For some server environments, it may enable functionality you do not require, for others it may disable functionality you need. After completing the Internet Information Services Lockdown Wizard, Microsoft recommends you read the URLscan documentation, and tune the URLScan.ini file to meet your specific needs. In addition, remember that no tool replaces the need for timely installation of service packs and hotfixes. For more information, click Help.
< Back
Next >
Cancel
Help

8. Continue clicking Next in the following windows.
9. Click Finish.

Booting from the Recovery DVD

You can restore Nearchive to the shipping configuration by using recovery DVDs.

Contact your Avid representative if you need to obtain the Recovery DVDs.

You receive three options when using the Nearchive recovery DVD.

- Option 1: Recover only the C: partition
- Option 2: Recover both the C: and D: partition
- Option 3: Exit from the procedure

Avid recommends option 2. It is important to back up all needed data from partition C:, partition D:, and your database prior to using the recovery DVD. For information on performing a database backup, see the A*vid Nearchive Administrator's and User's Guide*. Once you use the Recovery DVD, the system is restored to its shipping configuration, therefore, you must use your last backup to restore the database, after you have finished with the Recovery procedure.

To boot from the Recovery DVD:

1. Insert the Avid Nearchive Recovery DVD into the DVD drive.
2. When the Nearchive Recovery Setup options dialog box opens, select option 2 and press Enter.
3. Press any key to continue.
4. Type Y to perform the Nearchive recovery.
5. Type Y again.

   The ghost imaging process begins.
6. (Base Server only) When prompted, remove the CD, insert Disk 2, and press Enter.
7. After the copying process is complete, remove the CD from the CD drive and restart the system.
8. Perform the procedure for setting up the Nearchive Base Server as described in "Setting Up the Nearchive Base Server" on page 37.

Chapter 4
Troubleshooting

This chapter provides information on troubleshooting your Nearchive Base Server and Storage System.

The following topics are covered in this chapter:

- Using the ping and tracert Commands
- Nearchive Enclosure Is Whistling
- Failed Nearchive Drives
- Resetting the Nearchive Enclosure Power Supply Modules

Using the ping and tracert Commands

Ethernet networking is the backbone for the Nearchive Base Server and Storage System. If your Ethernet network is not performing properly, it will affect your workgroup. The following sections describe how to use two commands, ping and tracert, to troubleshoot your network.

ping

You can use the ping command to confirm that the physical and logical aspects of your network are configured correctly. *Physical* aspects include network interface card, cables, and Ethernet switches. *Logical* aspects include IP addresses, subnet masks, and routing.

ping works by sending a packet over the network from an originating host to a destination host. The destination host receives the packet and sends a response packet over the network to the originating host. If the originating host receives the response packet, it is a good indication that the network is configured correctly.

You can use many options with ping. This section discusses two types of ping syntax:

`ping [System Name]`

where [System Name] is the network name of the remote system to which you are testing connectivity

or

`ping [IP Address]`

where [IP Address] is the IP address of the remote system to which you are testing connectivity.

To run the ping command:

1. Open an MS-DOS® command prompt window.
2. At the command line, type the ping command (for example, **`ping 192.168.10.5).`**

   The ping result should resemble the following:

   ```
   Reply from 192.168.10.5: bytes=32 time<10ms TTL=255
   Reply from 192.168.10.5: bytes=32 time<10ms TTL=255
   Reply from 192.168.10.5: bytes=32 time<10ms TTL=255
   Reply from 192.168.10.5: bytes=32 time<10ms TTL=255
   ```

   Four responses of “Reply from…” indicate the network is configured correctly and the originating and destination hosts can see each other on the network.

   If any one of the responses in the ping result says:

   ```
   Request timed out.
   ```

   or

   ```
   Destination host unreachable.
   ```

   it indicates the network is not configured correctly or there are other network problems. Some items that can cause network problems are:

   - Bad, loose, or incorrectly connected cables
   - An incorrectly configured IP address or subnet mask on a local or remote system
   - Excessive network traffic

tracert

While ping can test for connectivity between two network hosts, tracert (short for “trace route”) can verify the network path that the data uses to travel between the two hosts.

Because Avid Composer Products applications are data intensive, it is important that large amounts of data be transferred between the Nearchive Base Server and Storage System and its clients in a timely fashion. An incorrectly configured network might get the data to its destination, but be too slow for your application to work effectively.

You can use the tracert command to confirm that the data is traveling along an optimal path. In a Nearchive environment, the Nearchive Base Server and Storage System and its clients should send traffic directly to each other. Routers should not be used to direct traffic between them.

It is possible for network traffic to take one path going to a system and a different path coming back. Therefore, it is important to run tracert from both the Nearchive Base Server and Storage System and its clients to test the data path in both directions.

As with ping, you can use many options with tracert. This section discusses two types of tracert syntax:

`tracert [System Name]`

where [System Name] is the network name of the remote system to which you are testing connectivity

or

`tracert [IP Address]`

where [IP Address] is the IP address of the remote system to which you are testing connectivity

To run the tracert command:

1. Open an MS-DOS command prompt window.
2. At the command line, type the tracert command (for example, **`tracert 192.168.10.5)`**.

   The tracert result should resemble the following:

```
Tracing route to [remote system name or IP address] over a
maximum of 30 hops:

1 10 ms <10 ms <10 ms [remote system name or IP address]

Trace complete.
```

One entry indicates an optimal route.

If your network is configured correctly, the tracert result will show only one entry and then indicate that the trace is complete. More than one entry indicates that the traffic is going through a router, which significantly affects performance.

If your tracert result shows more than one entry, most likely there is an incorrect IP address or subnet mask configuration on the local host.

Nearchive Enclosure Is Whistling

Problem: The Nearchive enclosure is making a whistling sound.

Possible Cause: One of the power supply modules might have failed. Perform the following checks:

- Make sure all the power supply modules are plugged in.
- Make sure each power supply module has a green LED lit.
- Make sure the power supply module switch is turned on.
- Make sure both power cords are plugged into an active electrical circuit.
- Make sure one of the electrical circuits has not overloaded and tripped the circuit breaker. If the power cords are plugged into different circuits, check both circuits for a tripped circuit breaker.
- Press the red button near the top center on the back of the Nearchive enclosure. The whistling should stop.

The Nearchive enclosure can continue to run if one of the power supply modules is turned off or fails, or if one of the power cords is not plugged in.

- Contact Avid Customer Support for further assistance and possible power supply module replacement.

Failed Nearchive Drives

You might need to remove and replace a Nearchive drive in your Data Drive Set. You should only remove drives from the Nearchive enclosure when specifically asked by Avid Customer Support.

Locating and Preparing a Failed Drive for Removal

The Nearchive Base Server and Storage System is configured to have four independent, 4-drive RAID5 arrays. All these arrays are referred to by the 3DM utility as Unit 0 and Unit 1. There are 2 controllers each has its own set of array 0 and 1.

To locate a failed drive:

1. The 3ware 3DM utility monitors the four 4-drive RAID5 arrays. When a failure occurs, an Event Notification Message pop-up window opens.
2. Click the Open Browser button. The 3ware 3DM System Name (System Name is the unique name of the Nearchive enclosure) Alarms Window opens, displaying errors and on which drive or drives the errors occured.
3. Click the Configure tab. The 3ware 3DM System Name (System Name is the unique name of the Nearchive enclosure) Configure Window opens. Select the port listed in red as Not in Service.
4. Scroll down to the Online Array Maintenance section of the Configure window and click the Remove Drive button. The window resets to the top of the page and the port is listed as Offline.

Controller ID4 is connected to the drives in slots 1 through 8 as labeled on the inside of the front door of the Nearchive enclosure. These eight drives are reported as ID4 logical ports 0 through 7 by the 3DM utility.

For example, if an error is found on Port 5 on controller ID4, the failed drive is physically installed in Slot 6.

Controller ID5 is connected to the drives in slots 9 through 16 as labelled on the inside of the front door of the Nearchive enclosure. These eight drives are reported as ID5 logical ports 0 through 7 by the 3DM utility.

For example, if an error is found on Port 3 on controller ID5, the failed drive is physically installed in Slot 12.

Removing a Failed Drive

Drive replacement must be performed with the Nearchive enclosure fully powered up with the Windows operating system running.

To remove a drive from the Nearchive enclosure:

1. Open the door on the front of the Nearchive enclosure from which you want to remove a drive. The door is unlocked when the key slot is in the 12-o'clock position. If the door is locked, locate the key to unlock the door.
2. Check to make sure the drive you want to remove is unlocked. The drive is locked when the key slot is in the 9-o'clock position.
3. Push down on the left side of the handle (you'll hear a click when it is free) and pull the handle forward. This unlatches the drive and slides it approximately 1/2 inch out of the Nearchive enclosure.
4. Grasp the drive carrier and slide it out of the Nearchive enclosure.

Replacing and Rebuilding a Failed Drive

To replace a drive in a Nearchive enclosure:

1. Locate the replacement drive. Make sure the handle on the drive carrier is unlatched and pulled out as far as possible.
2. Slide the drive into the open drive location in the Nearchive enclosure until it stops moving. Approximately 1/2 inch of the drive carrier should be outside the Nearchive enclosure.

The drive should slide into the Nearchive enclosure easily. If the drive does not slide into the Nearchive enclosure easily contact Avid Customer Support.

3. Push the handle into the drive carrier. This seats the drive in the Nearchive enclosure. You'll hear a click when the drive is fully seated and the handle latches in place.
4. Allow a minimum of 15 to 20 seconds for the replacement drive to spin up and become ready.
5. Click to select the box to the left of the offline port in the 3DM "Configure" menu.
6. Scroll down to "Online Array Maintenance" section of the window.
7. Select "Add Spare". The offline port should now be designated as "Hot Spare Disk".
8. Click to select the "Hot Spare" and click to select the other 3 drives in the array on which you are performing maintenance.
9. Scroll down to "Online Array Maintenance" and select "Rebuild Unit". The rebuild process launches immediately, illuminating the amber activity LEDs on each drive in the RAID. The rebuild process takes approximately two hours if there is no other system activity.

The rebuild process can be run in the background, but if you continue to use the system during the rebuild, the rebuild time will be significantly extended. Also, you will not have redundancy protection during the rebuild period.

10. The 3DM Home menu will show the rebuild progress (Rebuilding X% completed). The 3DM utility will post a message when the rebuild is complete.

Resetting the Nearchive Enclosure Power Supply Modules

If the Nearchive enclosure does not start when you press the Power switch, the power supply modules might have tripped to prevent them from an over-power condition.

To reset the power supply modules:

1. Turn the Power switch on the power supply modules to the off (O) position. The units have three redundant parallel power supplies with an AC switch for each supply. Turn off all three switches.
2. Wait 10 seconds.
3. Turn the Power switches to the on (|) position.

Appendix A

Nearchive Hardware Specifications and Notices

This appendix provides information on the dimensions and weight, the environmental, the electrical, and the power cord specifications for the Nearchive enclosure. It also provides information about rack installations and battery replacement.

Dimensions and Weight

The following table shows the dimensions and weight for the Nearchive enclosure.

Component Dimensions and Weight

Component	Height	Width	Depth	Weight
Nearchive enclosure	6.88 in (175 mm)	16.94 in (430 mm)	27.19 in (691 mm)	84.0 lb (38.2 kg)

Environment

The following table shows the environmental specifications for the Nearchive enclosure.

Environmental Specifications

Component	Operating Temperature	Operating Humidity	Storage Temperature	Storage Humidity
Nearchive enclosure	40°F to 95°F (4°C to 35°C)	10% to 80% noncondensing	-40°F to 158°F (-40°C to 70°C)	5% to 95% noncondensing

Electrical

The following table shows the electrical specifications for the Nearchive enclosure.

Electrical Specifications

Component	Voltage	Frequency	Watts (Max. U.S.)
Nearchive enclosure	115 to 230 V ac	50 to 60 Hz	460 W

Power Cords

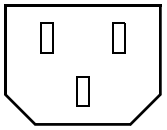
Select the power cords for the Nearchive enclosure according to the country destination; it must comply with local safety requirements.

The power cords are the Nearchive enclosure power disconnect device, and if rack mounting renders the power cords inaccessible, then the rack must provide a means to disconnect power.

The Power switch on the front of the Nearchive enclosure is a "standby" switch *only*. It does not disconnect power from the components inside the Nearchive enclosure. If you need to service the Nearchive enclosure, disconnect both power cords *before* beginning the service operation.

Use the following guidelines to replace the original cord set:

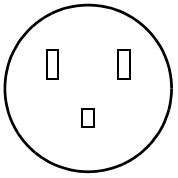
- **CEE-22 requirements:** The female receptacle of the cord set, shown in the following figure must comply with CEE-22 requirements.



Receptacle (CEE-22)

- **United States and Canada requirements:** In the United States and Canada, the male plug is a NEMA 5-15P style and is UL listed and CSA certified. The following figure shows the plug. SVT cordage can be used with desktop, countertop, or rack-mount units; all other equipment requires SJT cordage. Only SJT-type cord sets can be used for units that sit on the floor.

  Select the cord set according to the current rating of your unit. For the selection criteria for power cords in the United States and Canada, see "Power Cord Requirements" on page 75.



NEMA 5-15P Style Plug

- **European countries requirements:** In Europe, use only an H05VV-F, <HAR>, VDE, PVC, 3 x 1.00 mm^2 power cord. Für den Gebrauch in Deutschland muß ein Netzkabel des Typs H05VV-F, <HAR>, PVC, Größe, 3 x 1.00 mm^2 verwendet werden.

Power Cord Requirements

Size of Conductors in Cord			Maximum Current Rating of Unit	
Cord Type	**U.S./Canada**	**Europe**	**U.S./Canada**	**Europe**
SJT	16 AWG	3 x 1.00 mm^2	12 A	10 A
SVT	18 AWG	NA[a]	10 A	NA
SVT	17 AWG	NA	12 A	NA

a. NA – Not applicable.

Installing a Nearchive Enclosure in a Rack

The Nearchive enclosure can be installed in a rack. When you install an enclosure in a rack you *must* take the following precautions:

- **Elevated Operating Ambient Temperature** — When installed in a closed or multiunit rack assembly, the operating ambient temperature of the rack environment might be greater than the room ambient temperature. Therefore, consideration should be given to installing the equipment compatible with the manufacturer's maximum ambient temperature.
- **Reduced Airflow** — Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- **Mechanical Loading** — Mounting of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- **Circuit Overloading** —Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- **Reliable Grounding** — Reliable grounding of rack-mount equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (for example, the use of power strips).

Nearchive Enclosure Lithium Battery Replacement

The battery in the Nearchive enclosure *must* only be replaced by qualified personnel. Contact Avid Customer Support for assistance.

WARNING

Danger of explosion if battery is incorrectly replaced. Replace with only the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer’s instructions.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare. Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten. Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

Appendix B

Regulatory and Safety Notices

Warnings and Cautions

Never install equipment if it appears damaged.

Disconnect the power cord before servicing unit.

Only perform the services explicitly described in this document. For services or procedures not outlined in this document, speak with authorized Avid service personnel.

“CLASS 1 LED PRODUCT”

Follow all warnings and cautions in the procedures.

Operate the device within its marked electrical ratings and product usage instructions.

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a

commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canadian ICES-003

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Notice

CE

Declaration of Conformity
(According to ISO/IEC Guide 22 and EN 45014)

Application of Council Directives:	73/23/EEC, 89/336/EEC.
Standards to which Conformity is Declared:	EN60950:1999 Third Edition CISPR 22:1997 / EN55022:1994 + A1:1995 + A2:1997 Class A EN55024:1998/EN61000 — 3-2, 4-2, 4-3, 4-4, 4-5, 4-6, 4-11
Manufacturer's Name:	Avid Technology, Inc. 1925 Andover Street Tewksbury, MA 01876, USA
European Contact:	Nearest Avid Sales and Service Office or Avid Technology International B.V. Sandyford Business Center Unit 3, Dublin 18, Ireland
Type of Equipment:	Information Technology Equipment

Product Name:	Products for the Windows NT, Windows 2000, or Windows XP Operating System: Avid Adrenaline DNA, Avid DS Nitris DNA, Avid Equinox Break-Out-Box, Avid|DS, Avid Xpress, Avid Xpress DV, Film Composer, Media Composer, MediaDock, MediaDock 2+, MediaDrive, MediaRAID, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, Meridien I/O box, NewsCutter, NewsCutter DV, NewsCutter XP, Pro Tools AVoption|V10, Symphony Products for the Mac OS X Operating System: Avid Adrenaline DNA, Avid Xpress, Avid Xpress DV, Film Composer, Media Composer, MediaDock, MediaDock 2+, MediaDrive, MediaRAID, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, Meridien I/O box, Pro Tools AVoption|V10, Symphony Products for the UNIX Operating System: AirPlay, AirSPACE, AirSpeed, DNxchange, VideoSPACE Products for MediaNetwork and Workgroups: Avid ProEncode, Avid Unity MediaManager, Avid Unity MediaNetwork (includes File Manager), Avid Unity TransferManager, LANserver, LANserver EX, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, MEDIArray ZX, MEDIArray ZX Drive, Nearchive, PortServer, Vixel switches (8100, 7100, 7200, 9100, 9200), Xdeck
Base Model Numbers:	None
Product Options:	All
Year of Manufacture:	2005

(1) Products for the Windows NT, Windows 2000, or Windows XP Operating System: products were tested in a typical Avid Adrenaline DNA, Avid DS Nitris DNA, Avid Equinox Break-Out-Box, Avid|DS, Avid Xpress, Avid Xpress DV, Film Composer, Media Composer, MediaDock, MediaDock 2+, MediaDrive, MediaRAID, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, Meridien I/O box, NewsCutter, NewsCutter DV, NewsCutter XP, Pro Tools AVoption|V10, or Symphony configuration.

(2) Products for the Mac OS X Operating System: products were tested in a typical Avid Adrenaline DNA, Avid Xpress, Avid Xpress DV, Film Composer, Media Composer, MediaDock, MediaDock 2+, MediaDrive, MediaRAID, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, Meridien I/O box, Pro Tools AVoption|V10, or Symphony configuration.

(3) Products for the UNIX Operating System: products were tested in an AirPlay, AirSpeed, DNxchange, or VideoSPACE configuration.

(4) Products for MediaNetwork and Workgroups: products were tested in a typical Avid ProEncode, Avid Unity MediaManager, Avid Unity MediaNetwork (includes File Manager), Avid Unity TransferManager, LANserver, LANserver EX, MEDIArray, MEDIArray Drive, MEDIArray II, MEDIArray II Drive, MEDIArray ZX, MEDIArray ZX Drive, Nearchive, PortServer, or Xdeck configuration.

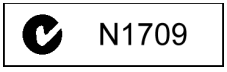
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

George R. Smith, Director of Hardware Engineering

Disposal of Waste Equipment by Users in the European Union

This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.

Australia and New Zealand EMC Regulations



John Kells, Australian Operations Manager
Avid Technology (Australia)
Unit B
5 Skyline Place
French Forest NSW 2086
Australia
Phone: 61-2-8977-4800

Taiwan EMC Regulations

Taiwan EMC Regulations BSMI Class A EMC Warning

警告使用者:
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

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